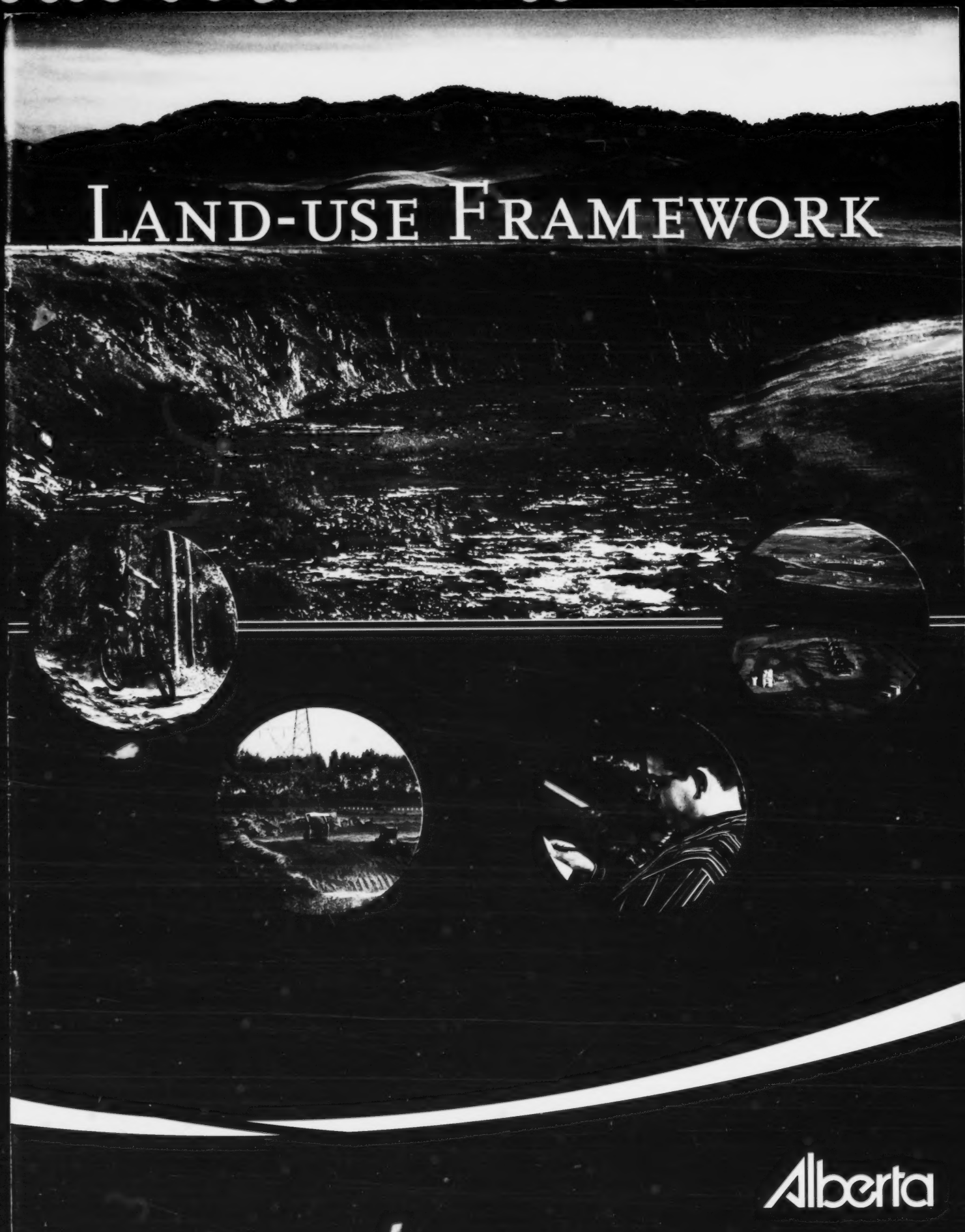
Land-use Framework



Alberta

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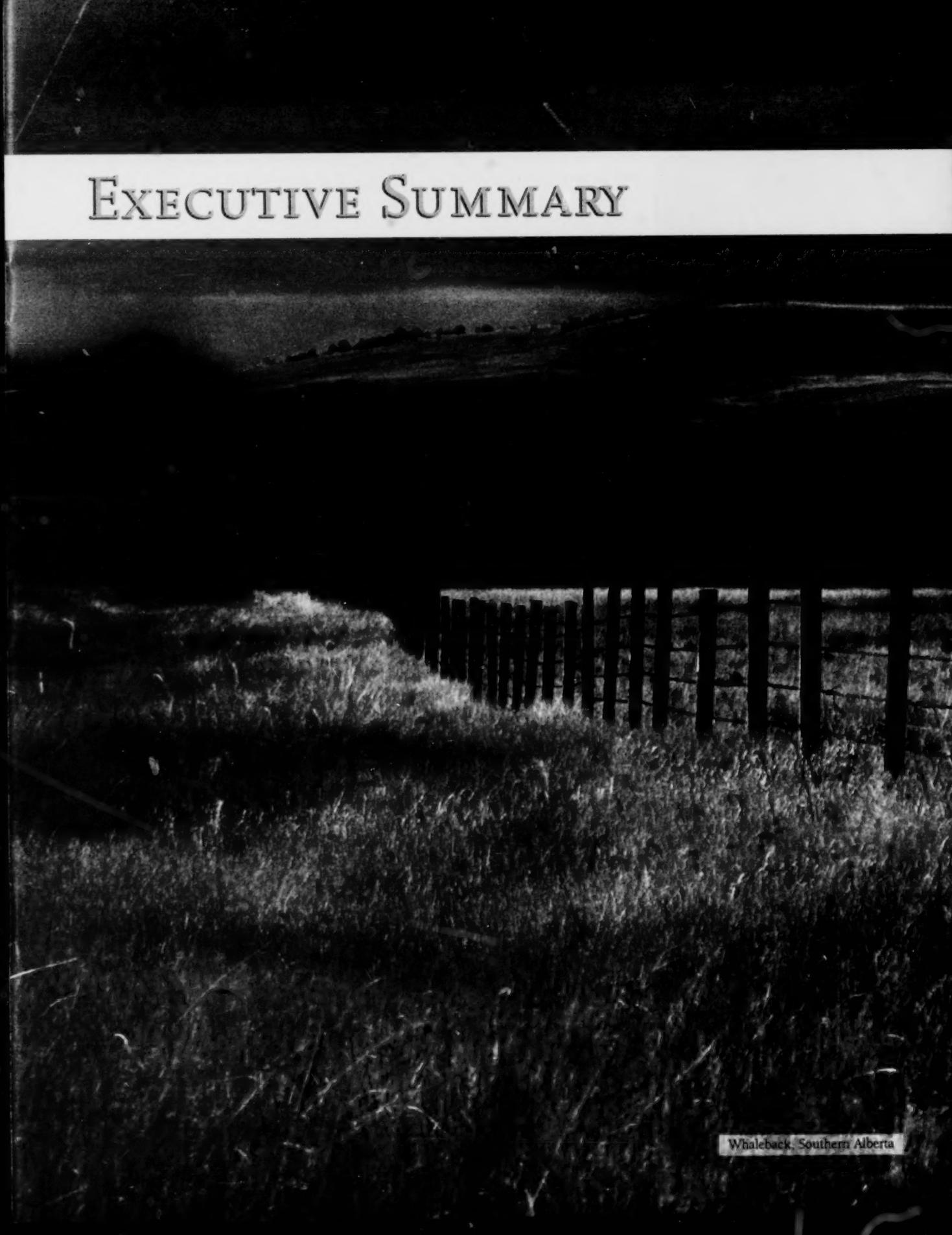
Executive Summary



Whaleback, Southern Alberta

Alberta's prosperity has created opportunities for our economy and people, but it also has created challenges for Alberta's landscapes. Industrial activity, municipal development, infrastructure, recreation and conservation interests often are competing to use the same piece of land. There are more and more people doing more and more activities on the same piece of land. The competition between user groups creates conflict, and often puts stress on the finite capacity of our land, air, water and habitat.

What worked for us when our population was only one or two million will not get the job done with four, and soon five million. We have reached a tipping point, where sticking with the old rules will not produce the quality of life we have come to expect. If we want our children to enjoy the same quality of life that current generations have, we need a new land-use system.

The purpose of the Land-use Framework is to manage growth, not stop it, and to sustain our growing economy, but balance this with Albertans' social and environmental goals. This is what the Land-use Framework is about—smart growth.

Our consultations with Albertans indicate widespread support for greater provincial leadership on land-use issues. This does not mean creating a heavy-handed, centralized bureaucracy in Edmonton. It does mean that the Alberta government must provide the kind of policy direction and guidelines, and opportunities that the local levels of government cannot. The Land-use Framework will leave local decision-making authority with the same officials who currently exercise it. However, in the future, these decisions will have to be consistent with regional plans. Accordingly, the Land-use Framework consists of seven basic strategies to improve land-use decision-making in Alberta.

Strategy 1

Develop seven regional land-use plans based on seven new land-use regions.

Alberta does not currently have formalized regional-level planning. Nor is there any formalized co-ordination between Government of Alberta land-use decisions on Crown lands and municipal land-use decisions. To remedy this, the government will create seven new land-use regions and develop a regional plan for each. The regional plans will integrate provincial policies at the regional level; set out regional land-use objectives and provide the context for land-use decision-making within the region; and reflect the uniqueness and priorities of each region. Municipalities, other local authorities and provincial government departments will be required to comply with each regional plan.

Strategy 2

Create a Land-use Secretariat and establish a Regional Advisory Council for each region.

Strong provincial leadership will be critical to the success of land-use planning and resource management. Establishing a formal governance structure for implementing the Land-use Framework will be necessary. To meet this need, the Land-use Framework creates a Land-use Secretariat to support implementation of the framework. The Secretariat will develop regional plans in conjunction with government departments and Regional Advisory Councils. Final decision on regional plans rests with Cabinet.

Strategy 3

Cumulative effects management will be used at the regional level to manage the impacts of development on land, water and air.

Our watersheds, airsheds and landscapes have a finite carrying capacity. Alberta's system for assessing the environmental impacts of new developments has usually been done on a project-by-project basis. This approach worked at lower levels of development activity. However, it did not address the combined or cumulative effects of multiple developments taking place over time.

A cumulative effects management approach will be used in regional plans to manage the combined impacts of existing and new activities within the region.

Strategy 4

Develop a strategy for conservation and stewardship on private and public lands.

Clean water and air, healthy habitat and riparian areas, abundant wild species and fisheries are all "public goods" that Albertans enjoy and value. The costs of supplying these goods on private lands are left largely on the shoulders—and pocketbooks—of our ranchers and farmers. Public lands that are managed for a variety of purposes also supply these goods. If Albertans value these landscapes and the benefits they provide to all of us, we have to find new ways to share the costs of conserving them. To do this, the Government of Alberta will develop new policy instruments to encourage stewardship and conservation on private and public lands.

Strategy 5

Promote efficient use of land to reduce the footprint of human activities on Alberta's landscape.

Land is a limited, non-renewable resource and so should not be wasted. Land-use decisions should strive to reduce the human footprint on Alberta's landscape. When it comes to land use, other things being equal, less is more—more choices for future generations. This principle should guide all areas of land-use decision-making: urban and rural residential development, transportation and utility corridors, new areas zoned for industrial development, and agriculture.

Strategy 6

Establish an information, monitoring and knowledge system to contribute to continuous improvement of land-use planning and decision-making.

Good land-use decisions require accurate, timely and accessible information. A sound monitoring, evaluation and reporting system is needed to ensure the outcomes of the Land-use Framework are achieved. The Government of Alberta will collect the required information to support land-use planning and decision-making, and create an integrated information system to ensure decision-makers have access to relevant information. The system will include regular monitoring, evaluation and reporting on the overall state of the land, and progress toward achieving provincial and regional land-use outcomes. A key component of this system will be the province's Biodiversity Monitoring Program.

Strategy 7

Inclusion of aboriginal peoples in land-use planning.

The provincial government will strive for a meaningful balance that respects the constitutionally protected rights of aboriginal communities and the interests of all Albertans. The Government of Alberta will continue to meet Alberta's legal duty to consult aboriginal communities whose constitutionally protected rights, under section 35 of the *Constitution Act, 1982 (Canada)*, are potentially adversely impacted by development. Aboriginal peoples will be encouraged to participate in the development of land-use plans.

Priority actions for the Land-use Framework.

There are five immediate priorities that the provincial government will support and implement on a priority basis. These are: legislation to support the framework, metropolitan plans for the Capital and Calgary regions, the Lower Athabasca Regional Plan, and the South Saskatchewan Regional Plan. In addition, a number of policy gaps and areas of provincial interest will be addressed by the provincial government in the short-term.

Introduction

A. Why we need a Land-use Framework

Albertans have a special relationship with the land. Our prairies and parklands, our forests and foothills, the Northern Boreal and the majestic Rockies—each shape our communities and lives in unique and powerful ways. Our province is big, beautiful and bountiful, and we are grateful for the opportunities it has given us.

Over the past 10 years, the province has enjoyed record prosperity. But this prosperity has brought new challenges and responsibilities. Today's rapid growth in population and economic activity is placing unprecedented pressure on Alberta's landscapes. Oil and gas, forestry and mining, agriculture and recreation, housing and infrastructure are all in competition to use the land—often the same parcel of land. There are more and more people doing more and more activities on the same piece of land. This increases the number of conflicts between competing user groups and often stresses the land itself. Our land, air and water are not unlimited. They can be exhausted or degraded by overuse.

We need to ensure this land—and all the activities it sustains—is managed responsibly for those who come after us. This means developing and implementing a land-use system that will effectively balance competing economic, environmental and social demands. Our current land management system, which served us well historically, risks being overwhelmed by the scope and pace of activity.

What worked for us when our population was only one or two million will not get the job done with four, and soon five million. We have reached a tipping point, where sticking with the old rules will not produce the quality of life we have come to expect. If we want our children to enjoy the same quality of life that current generations have, we need a new plan.

The purpose of the Land-use Framework is to manage growth, not stop it. The Government of Alberta rejects the simplistic view that to save the environment, we must stop development. The best environmental regimes in the world are found in the wealthiest countries. And this is not by accident. Protecting the environment costs money—lots of money when an economy is resource-based such as ours. The goal of the Land-use Framework is to sustain our growing economy, but balance this with Albertans' social and environmental goals. This is what the Land-use Framework is about—smart growth.

B. What is a Land-use Framework?

It may appear that the Land-use Framework is something new. It is not. In the first hundred years of our province's history, far-sighted leaders such as Ernest Manning and Peter Lougheed responded to our growing population and economy by putting in place new land-use guidelines.

In 1948, Premier Manning responded to the growth spurt stimulated by the great Leduc oil discovery by dividing the province into two areas. Public lands in the Green Area were to be managed primarily for forest production, watershed protection, fish and wildlife management, and recreation. Permanent settlement was excluded, except on legally subdivided lands, as were agricultural uses other than grazing. The White Area was designated for settlement, including agriculture. Premier Manning's initiative was an early and enlightened form of land-use planning.

A more recent example is the *Policy for Resource Management of the Eastern Slopes*, introduced by Premier Lougheed in 1977, during the last period of rapid growth in the province. The Eastern Slopes Policy identified watershed integrity as the highest priority use for this region of the province, followed by public recreation and tourism. It stated that the management of renewable resources would be the priority, but that non-renewable resource development—primarily oil and gas—would be encouraged in areas where it was compatible. The policy also mandated detailed subregional and local integrated resource management plans (IRPs) for its subregions. These IRPs included multiple objectives—timber, minerals and agriculture in addition to watershed, wildlife, fisheries, and recreation—but noted that "not all objectives will necessarily be achieved in all areas."

The Land-use Framework thus represents continuity with past policy, not a break. There are precedents in which far-sighted leaders responded to our growing population and economy with new land-use guidelines.

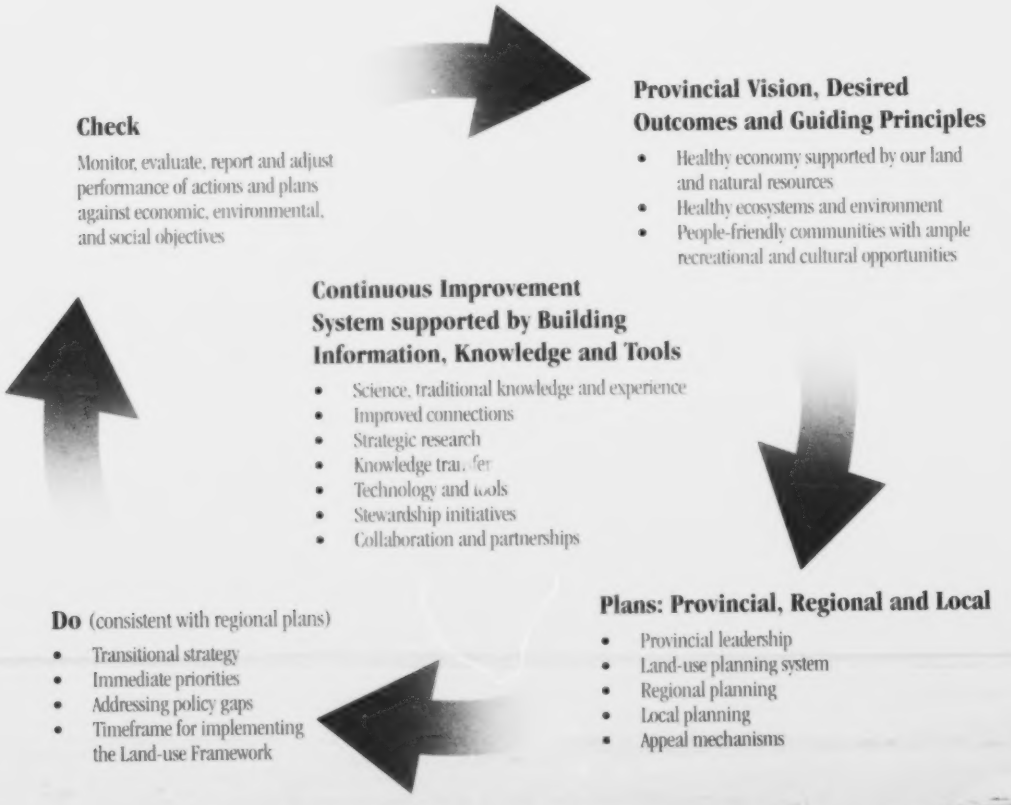
The Land-use Framework sets out an approach to manage public and private lands and natural resources to achieve Alberta's long-term economic, environmental and social goals. It provides a blueprint for land-use management and decision-making that addresses Alberta's growth pressures.

It complements the province's water and air policies—*Water for Life* (2003), the *Clean Air Strategy for Alberta* (1991) both of which have been updated, and *Alberta's 2008 Climate Change Strategy*. What uses are permitted on land—or more precisely, how they are done—clearly impact adjacent watersheds and airsheds.

It is just as important to recognize how land use is different from air and water policies. It is relatively easy to reach broad consensus on the appropriate standards for air and water; minimum standards must ensure that people, wildlife or plants are not harmed.

The scope of a Land-use Framework is not so easily defined. Is it about extending water and sewers from towns into adjacent rural communities? Or the proximity of feedlots to populated areas? Or addressing cumulative effects of development on the quality of our air, land and water on a region-by-region basis? Suffice to say, it is a more difficult topic to contain than air and water, and the implementation of the Land-use Framework will entail ongoing public discussion.

The diagram below shows the components of the systems approach, including outcomes-setting, planning, monitoring and improvement of land-use management and decision-making.


Provincial Vision, Desired Outcomes and Guiding Principles
• Healthy economy supported by our land and natural resources
• Healthy ecosystems and environment
• People-friendly communities with ample recreational and cultural opportunities
Plans: Provincial, Regional and Local
• Provincial leadership
• Land-use planning system
• Regional planning
• Local planning
• Appeal mechanisms
Do (consistent with regional plans)
• Transitional strategy
• Immediate priorities
• Addressing policy gaps
• Timeframe for implementing the Land-use Framework
Check
Monitor, evaluate, report and adjust performance of actions and plans against economic, environmental, and social objectives
Continuous Improvement System supported by Building Information, Knowledge and Tools
• Science, traditional knowledge and experience
• Improved connections
• Strategic research
• Knowledge transfer
• Technology and tools
• Stewardship initiatives
• Collaboration and partnerships

C. Consulting with Albertans

Land-use decisions affect all of us. The ideas and opinions of Albertans have played a vital role in developing the framework.

- **May 2006 to December 2006** — Input and advice was gathered from a broad spectrum of stakeholders (landowners; municipal leaders and planners; agricultural, forestry, transportation and energy associations; conservation and environmental groups; recreational groups; and academics) and members of First Nations, the Métis Settlement General Council and the Métis Nation of Alberta.
- **May 2007** — Seventeen provincewide public consultation sessions were held in 15 locations. Albertans provided their views on the future of land use in the province through a workbook questionnaire.
- **June 2007 to October 2007** — Four working groups of stakeholders developed strategies and actions for the government to consider in the following four primary policy areas: (1) growth and resource management, (2) planning and decision-making, (3) conservation and stewardship, and (4) monitoring and evaluation.
- **September 2007 to December 2007** — The Alberta government sought input from First Nations and Métis community organizations. They provided their views on the future of land use in the province in conjunction with their concerns on upholding their traditional and cultural values.
- **May 2008 to October 2008** — Four stakeholder working groups reviewed the Draft Land-use Framework released by the Government of Alberta on May 21, 2008. The government sought input from First Nations and Métis organizations on the draft framework. Public input was also received via a survey of Albertans.

Through these consultations, Albertans told us that they want the following improvements:

Provincial leadership to provide clear direction and parameters for regional, local and landowner decisions.

Integration and co-ordination of provincial policies governing air, water and land.

Clearer definitions of roles and responsibilities for land-use decisions at the provincial, regional and local levels.

Improved processes to deal with conflicts between land users, including surface and subsurface rights holders.

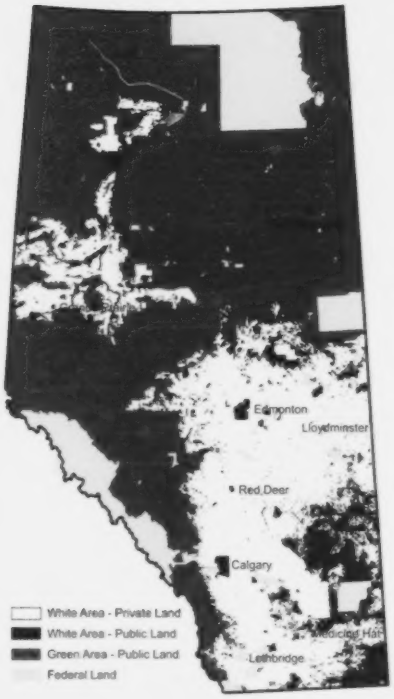
Enhanced conservation and stewardship on both private and public lands to promote ecological sustainability.

Improved information sharing about the condition of the land and the effects of activities on the land.

Increased consultation with First Nations and Métis communities, stakeholders and the public to ensure a fair opportunity to influence new policies and decisions.

Where We Are Now

A. How land-use decisions are made today



Land-use decision-making in Alberta today is shaped by the government's 1948 decision to divide the province into the White and Green Areas.

1. White and Green Areas of Alberta

The White Area covers about 39 per cent of the province. It is largely comprised of land owned by individuals and groups (homeowners, farmers, companies, organizations, etc.). Generally, ownership rights are limited to the land surface and do not include subsurface non-renewable natural resources. While private landowners can make decisions about how to use and manage their land, they must follow laws, bylaws and regulations set out by municipal and provincial governments.

Note 1: There are approximately 1,330 quarter sections—and scattered small pockets—of private land within the Green Area public lands.

Note 2: The eight Métis settlements cover 1.23 million acres.

White and Green Areas of Alberta

White Area	Green Area
• **Settled** lands	• **Forested** lands
• Covers about **39 per cent of Alberta**	• Covers about **61 per cent of Alberta**
• Three-quarters **privately owned** – by more than 1.7 million individual title holders (50,000 own or use most of the land for agriculture)	• Nearly all **publicly owned**
• Primarily in the **populated central, southern and Peace River areas**	• Primarily in **northern Alberta**, some in the **mountains and foothills**
• Main land uses: **settlements, agriculture, oil and gas development, tourism and recreation, conservation of natural spaces, and fish and wildlife habitat**	• Main land uses: **timber production, oil and gas development, tourism and recreation, conservation of natural spaces, watershed protection, and fish and wildlife habitat**
• Authority to set regulations and make decisions is primarily with **municipal governments on private land and with the provincial government on public land**	• Authority to set regulations and make decisions is primarily with the **provincial government**

The Green Area covers about 61 per cent of the province, mainly in the north and along the Eastern Slopes. It is largely owned by the provincial Crown and is referred to as public lands. It is set aside primarily for renewable and non-renewable resource development, limited grazing, conservation, and recreational use. The provincial government has the mandate to manage how public land is used.

The federal government controls about 10 per cent of the total land base in the White and Green areas. This federal land is primarily comprised of national parks, Indian Reserves and military bases and installations. Alberta's land-use planning and decision-making authority does not ordinarily apply to federal land.

In 1938, Alberta set aside land for Métis use. In July 1989, the Government of Alberta and the Federation of Métis Settlement Associations signed the (Alberta) Métis Settlements Accord which provided the political foundation for the eventual transfer of land (1.23 million acres) to Métis settlements and provided for a co-management agreement for the management of subsurface resources under the settlement lands.

2. Responsibilities for land use

The Government of Alberta has a number of province-wide policy responsibilities across several departments and boards that set rules for land use.

Aboriginal Relations works with First Nations and Métis people to strengthen their participation in the economy, develop organizational and community capacity, and ensure their constitutional rights are respected. The ministry also advises and works with other ministries, industry and the federal government on policies and initiatives that affect aboriginal people.

Agriculture and Rural Development advises and works directly with other provincial ministries, municipal government, landowners, and industry organizations to sustain and expand the agriculture industry through policies, legislation and strategies. As such, the ministry has responsibility for legislation that affects agricultural land use on more than 52 million acres of land in the province.

Culture and Community Spirit is responsible for the protection of Alberta's historic places. The ministry regulates developments on Alberta's public and private lands by protecting designated historic places, archaeological and palaeontological sites, aboriginal heritage traditional use sites, and historic buildings. Conservation and stewardship incentives include grant programs and municipal partnerships.

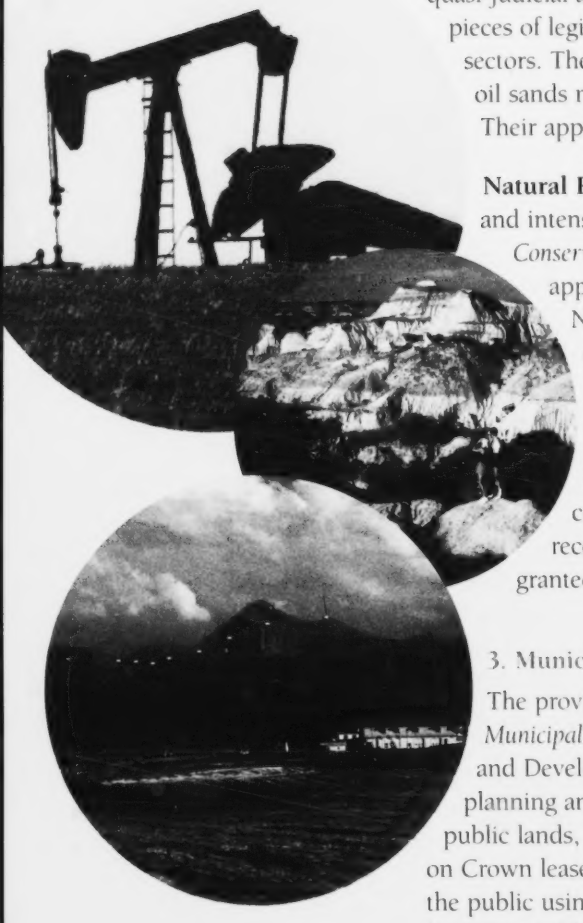
Energy manages the development of provincially owned energy and mineral resources through the sale of oil, gas and mineral rights. The ministry is also responsible for the assessment and collection of non-renewable resource revenues in the form of royalties, and freehold mineral taxes. Resources managed by the ministry include natural gas, conventional oil, oil sands, petrochemicals, electricity, coal and minerals, and renewable energy (wind, bio-energy, solar, hydro, geothermal, etc.).

Environment oversees policies and initiatives associated with air quality, water management, waste management, land use and climate change. The ministry manages the provincial environmental review process and co-ordinates public education on conservation and environmental protection. In addition, the ministry is responsible for environmental monitoring and compliance programs to enforce Alberta's environmental legislation and regulations.

Municipal Affairs provides authority and advisory services to municipalities for municipal planning, and subdivision and development control. Under the *Municipal Government Act*, municipalities may adopt plans and land-use bylaws and make planning decisions to achieve the most beneficial use of land within municipal boundaries.

Sustainable Resource Development manages the use of Alberta's public land, manages and protects Alberta's forest resource (wildfire, forest industry and forest health); and manages Alberta's fish and wildlife resources.

Tourism, Parks and Recreation has a range of responsibilities on Alberta's lands, which include managing Alberta's network of provincial parks and tourism industry development.



Energy Resources Conservation Board (ERCB) and the **Alberta Utilities Commission (AUC)** (formerly combined under the Energy and Utilities Board) are quasi-judicial agencies of the Government of Alberta that administer more than 30 pieces of legislation which regulate the province's energy resources and utility sectors. These agencies issue provincial approvals for activities such as coal and oil sands mines, oil and gas wells, electrical transmission lines and pipelines. Their approvals take priority over municipal plans and bylaws.

Natural Resources Conservation Board (NRCB) reviews non-energy projects and intensive livestock operations. It is governed by the *Natural Resources Conservation Board Act* and the *Agricultural Operation Practices Act*. Where appropriate, the NRCB co-ordinates its work with Alberta Environment. NRCB approvals take priority over municipal plans, bylaws and decisions.

Surface Rights Board is a quasi-judicial board charged with providing rights of entry to operators onto private and Crown lands for natural resource development and determination of land-owner compensation. These rights of entry are only given after operators have received approval to explore for subsurface resources or have been granted the rights to develop these resources.

3. Municipalities

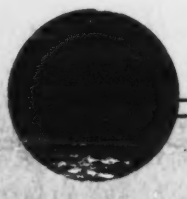
The provincial government provides direction to municipalities through the *Municipal Government Act*, its *Provincial Land-use Policies*, and the Subdivision and Development regulation. Municipalities have the authority for land-use planning and development on all lands within their boundaries. However, on public lands, the Crown is not bound by municipal decisions. Private development on Crown leases is subject to municipal planning approvals and those members of the public using Crown land (such as campers or all-terrain vehicle users) are bound by municipal bylaws and authorities. Some activities are exempt from municipal planning approval such as oil and gas well approvals, confined feeding operations, and provincial highway construction.

B. Growth indicators

While our current land management system served us well in the past, it now risks being overwhelmed by the scope and pace of activity.

Population

In the last 25 years, the population of Alberta has grown by more than a million people to approximately 3.5 million. By 2026, Alberta's population is projected to be five million. Two-thirds of Albertans live and work in the Edmonton-Calgary corridor, a pattern that is expected to continue.



Registered motor vehicles (cars and trucks)
In 1980, there were approximately 1.6 million registered vehicles in Alberta. In 2006, there were approximately 2.6 million registered vehicles—an increase of 64 per cent.

Recreational activities
Recreation activities have increased substantially. For example, the number of registered all-terrain vehicles has more than tripled from 19,000 in 1995 to 67,000 in 2006. The number of registered snowmobiles has increased from 19,000 to over 26,000 during the same period.

Oil and gas
Energy Resources Conservation Board statistics show that the number of oil and gas wells drilled annually increased from approximately 8,400 in 1995 to more than 16,500 in 2007. The number of coal bed methane wells increased from less than 1,100 wells in 2003 to a total of 12,500 in 2007.

Forestry
The annual timber harvest in Alberta increased 4.6 times, from 5.93 million cubic metres in 1980 to 27.55 million cubic metres in 2005. In the early 1980s, Alberta's forest companies produced one billion board feet of lumber whereas, today, Alberta produces 3.2 billion board feet of lumber. By 2004, Alberta had become the third largest source of oriented strandboard in North America, with more than three billion square feet produced yearly.

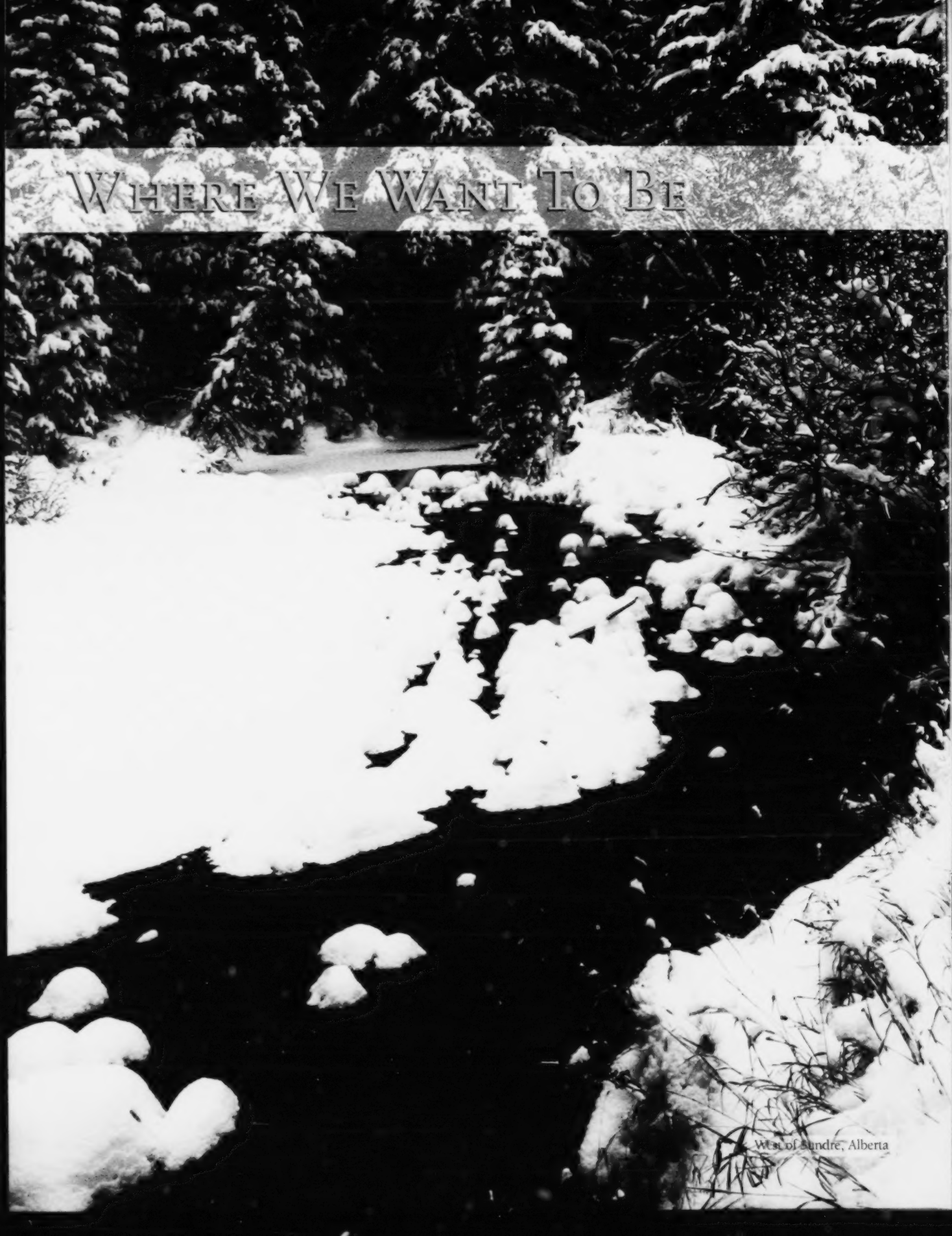
Electricity generation and transmission
Since 1998, electricity demand has grown at a rate equivalent to adding two cities the size of Red Deer each year. In 2007, Alberta's load growth was equal to that of Ontario—a province with three times our population. As of 2006, there were over 194,000 kilometres of electrical transmission lines (250 and 500 kV)—double the number of kilometres in 1960.

Agriculture
Alberta's farmers and ranchers own and use about one-third of the province's land. There are fewer farmers and ranchers today and it has become more cost effective for agricultural producers to have more land in production (i.e., the average size of farming operations has increased 63 per cent during the past 50 years). While the amount of land used for agriculture has been relatively stable across the province, agricultural land, particularly in areas like the Edmonton-Calgary corridor, Grande Prairie, and Lethbridge, has been increasingly divided into parcels too small to farm or ranch (i.e., fragmentation).

Rural and urban growth has resulted in the loss or conversion of some of the province's most productive farm and ranch lands to other uses. From 1960 to 2006, the number of cattle increased from 2.88 million to 6.37 million and the number of hogs increased from 1.47 million to 2.05 million. Over the past two decades, the number of confined feeding operations (i.e., feedlots) has increased significantly to over 2,400. The acres of improved cropland increased from 25,296,177 acres to 32,160,765 acres during the same time period.

While our population and number of activities on our landscape continue to grow, the size of our province does not. There are more and more people doing more and more activities on the same piece of land. We have reached a tipping point. What worked before will not work for our future. The time for change is now. We have the opportunity today to help shape the Alberta of tomorrow, but we must choose well. The Land-use Framework is about making the right choices now.

Where We Want To Be



West of Sundre, Alberta

No longer satisfied with the status quo, Albertans are looking for stronger provincial leadership to introduce the changes necessary to better balance our economic growth with our social and environmental values. The Government of Alberta welcomes this challenge, and the Land-use Framework proposes a path to the future that Albertans want.

To achieve this goal, we propose a vision that will guide and inspire our collective journey. To ensure that we can meaningfully measure successful progress, we propose three desired outcomes. To help achieve these outcomes, we adopt a set of guiding principles that will shape and inform our actions.

A. Our vision

Albertans work together to respect and care for the land as the foundation of our economic, environmental and social well-being.

We are grateful for the natural wealth and beauty that we have inherited and acknowledge our collective duty to pass this natural bounty on to the next generation—as good as, or better than, we received it. Our vision statement confirms that Albertans' well-being is more than just jobs and economic development. Our quality of life includes significant environmental, social and cultural dimensions. The vision also confirms the principles of sustainability and inter-generational responsibilities. The vision makes it clear that managing our land is a shared responsibility that involves all Albertans—including industry, landowners, aboriginal peoples, individual Albertans and governments.

B. Desired outcomes

To translate our vision into reality, we identify three outcomes. Actions taken to implement the Land-use Framework must contribute—directly or indirectly—to these outcomes. The outcomes are inter-related and of equal importance although trade-offs may be required.

Healthy economy supported by our land and natural resources
Includes current and future economic benefits realized by the use and enjoyment of our land and natural resources. Much of Alberta's prosperity is derived from the land and other natural resources. We must ensure our land and natural resources continue to provide economic benefits to Albertans over time.

Healthy ecosystems and environment
Alberta lands should be managed to ensure healthy ecosystems. Albertans accept the responsibility to steward our land, air, water and biodiversity so that they pass on to the next generation in as good or better condition as we received them. The means to achieve this outcome may vary from region to region and be different on public and private lands, but the goal is the same.

People-friendly communities with ample recreational and cultural opportunities
Albertans live in communities. How we design, plan and recreate in and how we move through the communities, and how these communities grow, impacts the land and future land use in Alberta. We want our communities to be safe and healthy, and we want citizens of Alberta to have ready access to parks, forests and other areas to pursue outdoor recreational and cultural interests.

C. Guiding principles

The vision and the desired outcomes define where Albertans want to be when it comes to land use. But to reach this destination, we will have to make many practical decisions—decisions involving competing interests, conflicting values and complicated trade-offs. To help align these actions with our vision and desired outcomes, we are adopting a set of guiding principles that will shape and inform our actions. In Alberta, land-use decisions will be:

Sustainable
Development which meets the needs of the present without compromising the ability of future generations to meet their own needs. Contemporary

land-use decisions will balance current economic, environmental and social benefits with the consequences for future generations. This principle of inter-generational responsibility applies to all forms of human land use (residential and industrial, agriculture and forestry, energy and transportation).

Accountable and responsible
All levels of government, the private sector and the community at large will share accountability for responsible land use.

Supported by a land stewardship ethic
This means accepting the responsibility to ensure that our land-use decisions are mindful of consequences for future generations. This responsibility applies to urban planning, forestry and agriculture, habitat and wildlife, watersheds and riparian areas, and all other decisions affecting land use. Where appropriate, market mechanisms will be used to promote stewardship practices.

Collaborative and transparent
Albertans, landowners, land users and governments will work together.

Integrated
Policies, planning and decisions will integrate current and new land use on public and private lands and co-ordinate land, air, water, biodiversity, economic development and social objectives within the region.

Knowledge-based
Government decision-making and choices will be informed by science, evidence and experience, including traditional knowledge of aboriginal peoples.

Responsive
Land-use decision-making processes will be responsive to changing economic, environmental and social factors over time and will be improved through periodic review. If there are negative unintended consequences, Cabinet will review policies for possible corrections or repeal.

Fair, equitable and timely
Decision-making criteria and processes will be clearly defined, consistently followed, and not subject to political expediency. Decision-making bodies will be provided with the capacity to perform their responsibilities in a timely manner.

Respectful of private property rights
Decisions will respect the laws of property ownership and the positive role of free markets in making societal (public) choices.

Respectful of the constitutionally protected rights of aboriginal communities
The Government of Alberta will continue to work with aboriginal communities' governments, while respecting the special role and relationship of the federal

government regarding the aboriginal peoples. The Government of Alberta recognizes that consultation should take place on matters that impact treaty or constitutionally protected rights of First Nations and Métis peoples.

The Land-use Framework is both an end and a beginning. It is the end of 18 months of consultation and dialogue with Albertans about our collective future. It is the beginning of a time of action, a time to start putting in place new ways of making decisions about land use that will achieve the sustainability and balance that Albertans have told us that they want. This does not mean that consultation and dialogue will end. Both will be necessary to implement new laws and policies. But to get the process started, we need a plan, and this is it. The Land-use Framework constitutes the provincial leadership on land use that Albertans have told us they want.

Provincial Leadership

In any land-use policy, striking the right balance between centralized and local decision-making is crucial. Different jurisdictions do it differently, depending on their political cultures, size and relative capacity of different levels of government. In Canada and the other common law democracies, there is a strong and successful tradition of local decision-making.

Our consultations with Albertans indicate widespread support for greater provincial leadership on land-use issues. This does not mean creating a heavy-handed, centralized bureaucracy in Edmonton. It does mean that the Alberta government must provide the kind of policy guidelines and opportunities that the local levels of government cannot. The Land-use Framework leaves final decision-making authority with the same local officials who currently exercise it. However, in the future, these decisions will have to be consistent with regional plans.

The Land-use Framework consists of seven basic strategies to improve land-use decision-making in Alberta. These provide a strategic blueprint for the government to follow as we move from where we are today to where we want to be.

Strategy 1
Develop seven regional land-use plans based on seven new land-use regions.

The provincial government has numerous policies and strategies that affect land use. Most of these were developed independently from each other and at different times. While most are enabled through provincial legislation, responsibility for decision-making and enforcement may be vested in the provincial government, municipal governments, multi-stakeholder groups, industry, or a combination of all four. These processes have worked reasonably well in developing plans for a particular purpose. However, there is uncertainty about how plans in a particular geographic area should be linked and what planning process or plan takes priority over another.

Alberta does not currently have formalized regional-level planning. Nor is there any formalized co-ordination between Government of Alberta land-use decisions on Crown lands and municipal land-use decisions. Resolving these complexities will require clear provincial leadership and an integrated process for land, air, and water management.

The Government of Alberta will create seven land-use regions and will develop land-use plans for each of these regions. The regional plans will integrate provincial policies at the regional level, set out regional land-use objectives and provide the context for land-use decision-making within the region, and reflect the uniqueness of the landscape and priorities of each region. Municipalities and provincial government departments will be required to comply with regional plans in their decision-making.

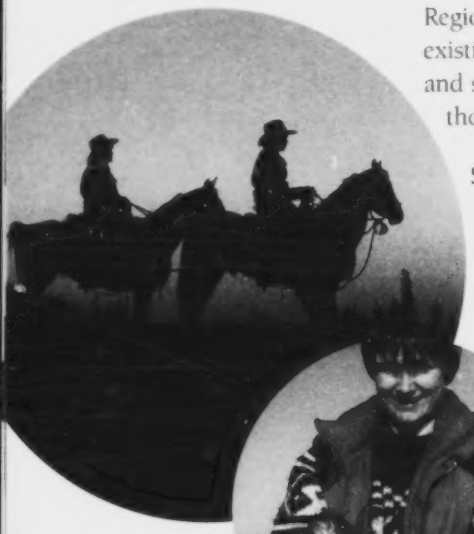
Strategy 2
Create a Land-use Secretariat and establish a Regional Advisory Council for each region.

Strong provincial leadership and clear direction are critical elements for sound land-use planning and resource management in Alberta. Establishing a formal governance structure for implementing the Land-use Framework will be necessary for it to succeed.

To meet this need, the Land-use Framework creates a Land-use Secretariat to support implementation of the framework. The Secretariat will develop regional plans in conjunction with government departments and Regional Advisory Councils. Final decision on regional plans rests with Cabinet.

Strategy 3
Cumulative effects management will be used at the regional level to manage the impacts of development on land, water and air.

Our watersheds, airsheds and landscapes each have a finite carrying capacity. Alberta's system for assessing the environmental impacts of new developments has usually been done on a project-by-project basis. This approach worked at lower levels of development activity. However, it did not, in all cases, address the combined or cumulative effects of multiple developments taking place over time.



Regional plans will adopt a cumulative effects approach that includes the impacts of existing and new activities. It will reflect our understanding of environmental risks and socio-economic values in setting environmental objectives and managing within those objectives.

Strategy 4

Develop a strategy for conservation and stewardship on private and public lands.

Clean water and air, healthy habitat and riparian areas, abundant wild species and fisheries are all "public goods" that Albertans enjoy and value. The costs of supplying these goods on private lands are left largely on the shoulders—and pocketbooks—of our ranchers and farmers. This explains why much habitat and wetlands have disappeared in recent decades and why there has been an increase in the conversion of agricultural lands to other uses. Public lands are managed for a variety of uses and are also important in providing public goods. We have to find new ways to share the costs of conserving these public goods.

To do this, the Government of Alberta will develop new policy instruments to encourage stewardship and conservation on private and public lands. These could include: environmental goods and services; support for conservation easements and land trusts; "cluster development" through the transfer of development credits; and allowing land-trust tax credits to be sold to third parties.

Strategy 5

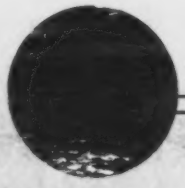
Promote efficient use of land to reduce the footprint of human activities on Alberta's landscape.

Land is a limited, non-renewable resource and so should not be wasted. Land-use decisions should strive to reduce the human footprint on Alberta's landscape. When it comes to land use, other things being equal, less is more—more choices for future generations. This principle should guide all areas of land-use decision-making: urban and rural residential development, transportation and utility corridors, new areas zoned for industrial development, and agriculture.

Strategy 6

Establish an information, monitoring and knowledge system to contribute to continuous improvement of land-use planning and decision-making.

Good land-use decisions require accurate, timely and accessible information. There needs to be greater collaboration and sharing of information between individuals and groups who have data and knowledge about land. A sound monitoring, evaluation and reporting system is needed to ensure the outcomes of the Land-use Framework are achieved.



The Government of Alberta will collect the required information to support land-use planning and decision-making and create an integrated information system to ensure decision-makers have access to relevant information. The system will include regular monitoring, evaluation and reporting on the overall state of the land and progress toward achieving provincial and regional land-use outcomes. A key component of this system will be the province's Biodiversity Monitoring Program carried out by the Alberta Biodiversity Monitoring Institute.

Strategy 7
Inclusion of aboriginal peoples in land-use planning.

The provincial government will strive for a meaningful balance that respects the constitutionally protected rights of aboriginal communities and the interests of all Albertans. The Government of Alberta will continue to meet Alberta's legal duty to consult aboriginal communities whose constitutionally protected rights, under section 35 of the *Constitution Act, 1982 (Canada)*, are potentially adversely impacted by development. Aboriginal peoples will be encouraged to participate in the development of land-use plans.

Priority actions for the Land-use Framework

There are five immediate priorities that the provincial government will support or complete on a priority basis. These are: legislation to support the framework, metropolitan plans for the Capital and Calgary regions, the Lower Athabasca Regional Plan, and the South Saskatchewan Regional Plan. In addition, a number of policy gaps and areas of provincial public interest will be addressed by the provincial government in the short-term.

Timeframe for implementing the Land-use Framework

The Land-use Framework constitutes a significant change in how land-use decisions are made in Alberta. Implementing the recommended governance changes and developing individual plans for the seven new regions will take time. A timeframe for the implementation of the Land-use Framework is provided on page 47.

Land-use Regions and Plans

The provincial government has numerous policies and strategies that affect land use, many developed independently and at different times to address changing circumstances. As a result, existing policies and strategies are not as well integrated as they could be and often do not provide an understanding of priorities.

The multiple processes that exist today have created considerable complexity in land-use planning and decision-making. Resolving these complexities will require provincial leadership and an integrated planning process. A single formalized and integrated process for regional-level planning currently does not exist in the province.

Establishing a formal regional planning system is the most effective way to implement provincial policy. A regional approach will establish land-use management objectives and determine land-use trade-offs. Regional planning will integrate economic, environmental and social factors and provide the context for future, more detailed planning. The regional plan will ensure that planning for land use, water and air quality are aligned with each other.

A. Provincial outcomes

The Alberta government has the primary responsibility for making decisions that meet the economic, environmental and social goals of all Albertans. Land-use decisions influence the ability of the government to meet these goals. Therefore, land-use planning and decision-making need to be guided by and consistent with defined outcomes and principles. This applies equally to municipal governments as well as government departments and agencies.

The desired outcomes for Alberta are;

- healthy economy supported by our land and natural resources,
- healthy ecosystems and environment, and
- people-friendly communities with ample recreational and cultural opportunities.

The provincial government will ensure that the following outcomes and principles are reflected in the land-use plans developed for each region.

Outcome
Healthy economy supported by our land and natural resources

- Alberta's natural resources are developed in a way that optimizes value for the broadest number of Albertans and reduces waste.
- Reasonable and timely access to these resources will be ensured.
- Innovation, value-added diversification, global competitiveness, and balanced and responsible use of natural resources are crucial to sustain the momentum of Alberta's economy.
- The interests of surface users and surface and subsurface developments are balanced and managed effectively.
- Land and resource use promotes diverse industries, stimulates environmentally sound economic activity, and leaves economic opportunities open for future Albertans.

Outcome
Healthy ecosystems and environment

- The life-supporting capacity of air, water, land and biodiversity are maintained or enhanced, and the natural resources that form part of the environment are sustained.
- The intrinsic value of nature is respected.
- Soil and soil fertility are maintained and/or enhanced.
- The quality and quantity of ground and surface water are protected.
- Greenhouse gas emissions and air pollution are reduced, waste is minimized, and the biodiversity and abundance of native species and their natural habitats are maintained.
- Communities are prepared to respond to and adapt to a changing climate and environmental events (e.g., floods, drought).

Outcome
People-friendly communities with ample recreational and cultural opportunities

- Settlement development and land use will focus on efficient use of land, infrastructure, public services and public facilities.
- Significant historical resources are identified and protected, and potential impacts are managed effectively. Alberta's parks inspire people to value, enjoy and discover the natural world and the benefits it provides for current and future generations.
- Stakeholders are fairly engaged in planning processes, which in turn improves the quality of land-use decisions and builds confidence in the decision-making processes.

B. Regions defined

The Land-use Framework creates seven regions for Alberta based on the major watersheds, with boundaries aligned to best fit with existing municipal boundaries and the natural regions. These regions are large enough to work at the landscape level. However, the delineation of boundaries recognizes that not all important issues are completely addressed at one spatial scale. Where there are issues that cross regional boundaries, the need for linkages and compatible treatment will be identified in the relevant plans. For example, while the Red Deer Region will be considered a distinct region for land-use purposes, watershed management policy for the region will be aligned and set within the context of the planning for the greater South Saskatchewan River basin. The regional boundaries are illustrated on the map.

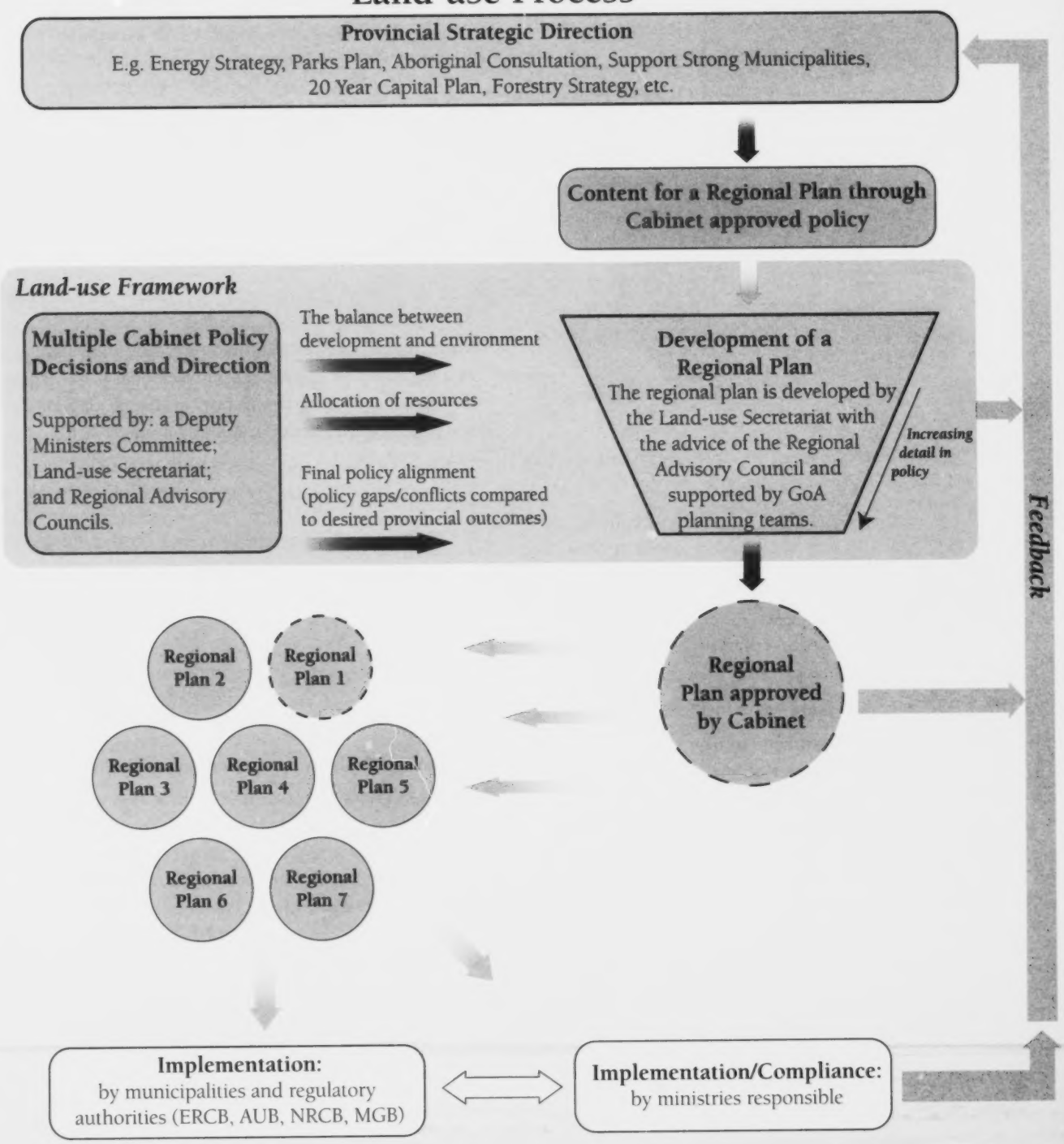
LOWER PEACE
LOWER ATHABASCA
UPPER PEACE
UPPER ATHABASCA
NORTH SASKATCHEWAN
RED DEER
SOUTH SASKATCHEWAN
Land-use Framework Planning Regions based on Municipal Districts & Watershed
LUF Planning Regions Boundaries
Municipal Districts Boundaries
Metis Settlements
Lands Under Federal Jurisdiction
Indian Reserves
National Parks
Department of National Defence
Produced by Sustainable Resource Development, Finance and Administration Division. Base Map Data Provided by Spatial Data Warehouse Ltd. ©Nov 27, 2008 Government of Alberta

C. Establishing a model for regional planning

The diagram on the next page illustrates the model in which land-use planning and decision-making would be conducted within the Land-use Framework. It begins with provincial policy direction guiding the development of regional plans. At times, and depending on the issue, a region will be strongly directed by provincial interests. At the regional level, plans will set the economic, environmental and social outcomes for the regions. These

integrated regional plans will provide guidance to municipal and provincial planning and decision-making. For municipalities, this would include general development and area structure plans, and land-use bylaws; for provincial departments, this would include detailed integrated land and resource management plans.

Land-use Process


Provincial Strategic Direction
E.g. Energy Strategy, Parks Plan, Aboriginal Consultation, Support Strong Municipalities, 20 Year Capital Plan, Forestry Strategy, etc.
Content for a Regional Plan through Cabinet approved policy
Land-use Framework
Multiple Cabinet Policy Decisions and Direction
Supported by: a Deputy Ministers Committee; Land-use Secretariat; and Regional Advisory Councils.
The balance between development and environment
Allocation of resources
Final policy alignment (policy gaps/conflicts compared to desired provincial outcomes)
Development of a Regional Plan
The regional plan is developed by the Land-use Secretariat with the advice of the Regional Advisory Council and supported by GoA planning teams.
Increasing detail in policy
Feedback
Regional Plan 2
Regional Plan 1
Regional Plan 3
Regional Plan 4
Regional Plan 5
Regional Plan 6
Regional Plan 7
Regional Plan approved by Cabinet
Implementation:
by municipalities and regulatory authorities (ERCB, AUB, NRCB, MGB)
Implementation/Compliance:
by ministries responsible

integrated regional plans will provide guidance to municipal and provincial planning and decision-making. For municipalities, this would include general development and area structure plans, and land-use bylaws; for provincial departments, this would include detailed integrated land and resource management plans.

Land-use Process

Provincial Strategic Direction

E.g. Energy Strategy, Parks Plan, Aboriginal Consultation, Support Strong Municipalities, 20 Year Capital Plan, Forestry Strategy, etc.

Content for a Regional Plan through Cabinet approved policy

Land-use Framework

Multiple Cabinet Policy Decisions and Direction

Supported by: a Deputy Ministers Committee; Land-use Secretariat; and Regional Advisory Councils.

The balance between development and environment

Allocation of resources

Final policy alignment (policy gaps/conflicts compared to desired provincial outcomes)

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The regional plan is developed by the Land-use Secretariat with the advice of the Regional Advisory Council and supported by GoA planning teams.

Increasing detail in policy

Regional Plan approved by Cabinet

Regional Plan 1

Regional Plan 2

Regional Plan 3

Regional Plan 4

Regional Plan 5

Regional Plan 6

Regional Plan 7

Implementation:
by municipalities and regulatory authorities (ERCB, AUB, NRCB, MGB)

Implementation/Compliance:
by ministries responsible

Feedback

Regional plans will:

- reflect the vision, principles and outcomes of the Land-use Framework;
- define regional outcomes (economic, environmental and social) and a broad plan for land and natural resource use for public and private lands within the region;
- align provincial strategies and policies at the regional level;
- consider the input from First Nations and Métis communities, stakeholders, and the public;
- determine specific trade-offs and appropriate land and natural resource management for specific landscapes within a region;
- define the cumulative effects management approach for the region and identify targets and thresholds;
- provide direction and context for local plans within the region;
- recognize the authority and role of municipalities in local decision-making;
- be approved by Cabinet, thereby becoming government land-use policies for the regions; and
- will be subject to regular reviews and public reporting:
  - every five years – plan updates and reports on implementation; and
  - every 10 years – complete plan reviews.

Preparation of a regional plan may identify a need to refine provincial policy. Regional plans may also identify the need for more detailed plans to address specific needs and issues within the region. In addition, changes in provincial policy or direction will need to be reflected through amendments to regional plans to ensure that provincial policy and regional plans remain aligned.

D. Local planning

Planning and decision-making at the local level by municipalities and provincial agencies are often criticized for not reflecting higher level provincial policy directions and regional interests.

An effective land management system recognizes that planning and decision-making must take place at different levels and be integrated between levels. Alberta has a strong tradition of local government control that recognizes the diversity across the province. However, in the face of increasing pressures and conflicts, the Government of Alberta needs to ensure that provincial interests are addressed at a local scale.

1. Municipal planning

Municipalities will be required to ensure their plans and decisions are consistent with regional plans. The Government of Alberta will respect the existing land-use planning and decision-making authority of municipalities.

Municipalities will;

- prepare context statements outlining how their municipal development plans will align with and address provincial directions stated in regional plans, and
- amend municipal planning documents to adopt and align with regional planning directions.

2. Provincial planning carried out at the local level

Direction under regional plans will be defined and delivered on provincial Crown land through integrated land and resource management plans (e.g., access management planning, forest management planning, parks planning). These will further define access to and use of provincial Crown land and focus on operational activities that reflect the regional priorities and directions.

The Government of Alberta will be moving forward, in partnership with industry and other stakeholders, with the Integrated Land Management Program on provincial Crown land. The program promotes responsible use of provincial Crown land by influencing land-user behaviour, improving stewardship, and encouraging acceptance and adoption of integrated land management principles as a "way of doing business". The program aligns the operational processes and systems of land users and government to facilitate and enable integration of land-based activities.

E. Appeal mechanisms

The Land-use Framework creates a regional level of planning that does not currently exist in the province. Within the context of these regional plans, the provincial government and local governments will be making decisions. Decision-making bodies will be required to comply with regional plans and if any regional plan compliance issues arise, they will be resolved within existing review and appeal systems.

Albertans expect municipalities and provincial ministries to act in a way that is consistent with regional directions and plans. Because they are approved by Cabinet, regional plans are government policies and cannot be appealed.

Land-use Governance

Burrowing Owl
Photo Credit: Gordon Court

The provincial government will create a Land-use Secretariat and establish a Regional Advisory Council for each region. Final decisions on regional plans under the Land-use Framework are Cabinet-level responsibilities. Cabinet will:

- provide provincial oversight of regional planning,
- review and decide terms of reference for regional plans,
- review and make final decisions on regional plans,
- ensure integration of provincial land-use related policies, and
- ensure regional plans are implemented to achieve provincial outcomes.

A. Land-use Secretariat

A provincial Land-use Secretariat is established to support Cabinet decision-making. The Secretariat will:

- support the development of a terms of reference for regional plans,
- lead the development of regional plans in conjunction with departments with an interest in land use (regional planning teams) and in consultation with the Regional Advisory Councils,
- communicate with local planning bodies to clarify and interpret regional plans,
- support policy reconciliation,
- provide advice to regional bodies on provincial policy,
- ensure effective management of cross-regional infrastructure and policy matters,
- assist provincial departments, municipalities and other local authorities in reconciling their respective roles to the Land-use Framework,
- provide administrative infrastructure and support to Regional Advisory Councils, and
- ensure application of cumulative effects models.

B. Regional Advisory Councils

The Government of Alberta will create Regional Advisory Councils for each region to provide advice and receive direction from the Cabinet and provide advice to the Land-use Secretariat on the development of the regional plan. Regional Advisory Councils will:

- consist of members representing the range of perspectives and experience in the region and who are able to appreciate the broad interest of the region and its place in the province. Members will be appointed by the provincial government and will include provincial and municipal government interests, industry, nongovernment groups, aboriginal community representatives, and other relevant planning bodies (e.g., Watershed Planning and Advisory Councils) within the region;
- have a mandate to advise on the development of regional plans;
- provide advice on addressing trade-off decisions regarding land uses and on setting thresholds to address cumulative effects; and
- advise and participate in public and stakeholder consultation for the planning process.

The Government of Alberta will ensure that the Land-use Secretariat and regional planning processes are sustained through appropriate resourcing.

Cumulative Effects Management

The Government of Alberta will use cumulative effects management at a regional level.

Cumulative effects denotes the combined impact of past, present and reasonably foreseeable human activities on a region's environmental objectives. The environmental objectives are established based on our understanding of environmental risks and socio-economic values. Once the objectives are set, cumulative effects systems manage those environmental outcomes.

A final caveat is in order. Cumulative effects management is an emerging practice, an art not a science. Accordingly, it should be used pragmatically not dogmatically.

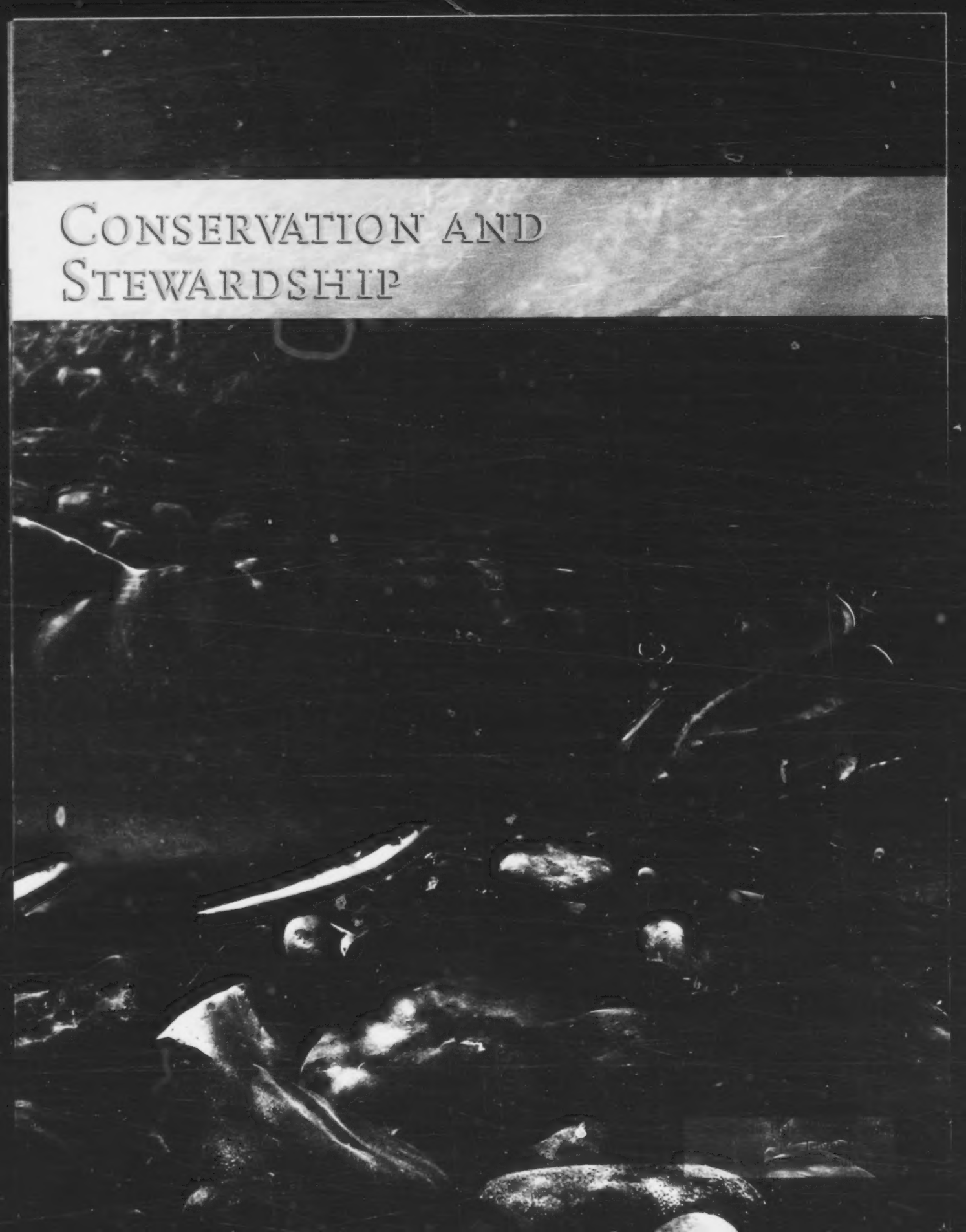
Cumulative effects management recognizes that our watersheds, airsheds and landscapes have a finite carrying capacity. Our future well-being will depend on how well we manage our activities so that they do not exceed the carrying capacity of our environment.

Alberta's current regulatory system is based on a project-by-project approval and mitigation of the adverse effects of each project. Until now, the approach has been to control the impact of each project. While this may be acceptable for low levels of development, it does not adequately address the cumulative effects of all activities under the current pace of development.

Cumulative effects cannot be managed as an "add-on" to existing management approaches; nor is it about shutting down development. It is about anticipating future pressures and establishing limits; not limits on new economic development, but limits on the effects of this development on the air, land, water and biodiversity of the affected region. Within these limits, industry would be encouraged to innovate in order to maximize economic opportunity.

The Government of Alberta will develop a process to identify appropriate thresholds, measurable management objectives, indicators and targets for the environment (air, land, water and biodiversity), at the regional levels and, where appropriate, at local levels. Land-use planning and decision-making will be based on balancing these environmental factors with economic and social considerations.

Conservation and Stewardship



Clean water and air, healthy habitat and riparian areas, abundant wild species and fisheries are all "public goods" that Albertans enjoy and value. The costs of supplying these goods on private lands are left largely on the shoulders—and pocketbooks—of ranchers and farmers. Most land-use decisions are economic decisions, and the old saying, "if it doesn't pay, it doesn't stay," explains why much habitat and wetlands have disappeared in recent decades and why there has been an increase in the fragmentation and conversion of agricultural lands to other uses. Public lands are managed for a variety of uses and are also important in providing public goods. If Albertans value these landscapes on private and public lands and the benefits they provide to all of us, we have to find new ways to share the costs of conserving them.

Stewardship is a shared responsibility. While Alberta landowners have a strong tradition of stewardship, current efforts need to keep pace with Alberta's rapid growth. Although land users and landowners have a primary role in land stewardship and conservation, the Government of Alberta has a responsibility to partner with Albertans, industry, and other levels of government to facilitate new stewardship opportunities and strategies to protect and enhance the environment.

There are a variety of economic and noneconomic tools and approaches used throughout the world. There has been a shift away from traditional regulatory mechanisms to market-based instruments. Both approaches will be used in Alberta to encourage stewardship.

Market-based instruments include:

- environmental fees, charges and taxes (green tax reform);
- specialty markets;
- deposit-refund systems;
- tradable permits;
- incentives for environmental actions (provider gets);
- liability (polluter pays); and
- information disclosure on environmental performance.

The Government of Alberta will develop a strategy for conservation and stewardship on public and private lands. This strategy will:

- identify and develop a toolkit of new best practices, market-based approaches and incentives to provide ecological goods and services;
- develop education and awareness programs;
- develop action plans for the conservation and sustainable use of Alberta's biodiversity that can be used to support and inform development of regional plans; and
- pursue innovative ways to raise both public and private funds to support conservation and stewardship initiatives.

The Government of Alberta will work with the Institute of Agriculture, Forestry and the Environment, and other provincial applied research institutes to advance this strategy.

A. Private land stewardship

The Government of Alberta will support and encourage stewardship of private lands in Alberta through the development of applicable incentives and market-based instruments. The government will also consider new funding opportunities at the municipal level for stewardship and conservation initiatives on private lands. These could include:

Transfer of development credits

This is a tool that can be applied to private lands to direct development away from specific landscapes. This approach has been used in some places to allow development but also to allow for the conservation of open spaces and agricultural land. Transfer of development credits allows the owners of both developed and undeveloped land to share equitably in the financial benefits of the developed lands.

Land trusts and conservation easements

A land trust is a non-profit, charitable organization that has as one of its core activities the acquisition of land or interests in land (i.e., conservation easements) for the purpose of conservation. Whether protecting riparian areas, wetlands, or critical habitats for native species, land trusts work with private landowners to conserve public goods (e.g., sensitive habitats, open spaces in settled areas). The Government of Alberta will examine steps to ensure that Eco-Gift tax credits are more widely utilized. The Government will consider alternatives including making the provincial portion of the Tax Credit refundable or extending the carry-forward period. Alberta will also encourage the Government of Canada to consider similar reforms to the Federal portion of the Tax Credit.

Other tools for maintaining ecological goods and services

Economic and social benefits are derived from the natural processes of a healthy environment and biodiversity. These are a benefit to all of society and essential to sustaining a healthy and prosperous way of life. They include groundwater recharge, flood and erosion control, wildlife habitat, productive soils, carbon sequestration and abundant clean air and water. Market-based incentives and tools can provide a way for private landowners to receive some monetary compensation for the ecological goods and services their lands provide.

B. Public land stewardship

The Government of Alberta will continue to manage public lands for a variety of purposes and values. An important aspect of this is to conserve sensitive lands and natural resources (e.g., sensitive habitats, watersheds, historical resources, heritage rangelands). The management of these lands will be supported by a regulatory framework. To further encourage the stewardship of these lands, the Government of Alberta will evaluate market-based incentives that are applicable in Alberta. These could include:

Tradable Disturbance Rights (TDRs)

TDRs is an instrument for cumulative effects management on public land. Its purpose is to minimize the overall disturbance footprint on the land, permitting the trading of "land disturbance" in a co-ordinated market. For example, a company that has been assigned a permit for development and does not use all the space can sell the unused space to someone else who needs more land. Both parties to the trade are encouraged to minimize their overall footprint.

C. Stewardship often transcends boundaries

The following incentives will be further evaluated to identify their potential to be applied on both public and private lands:

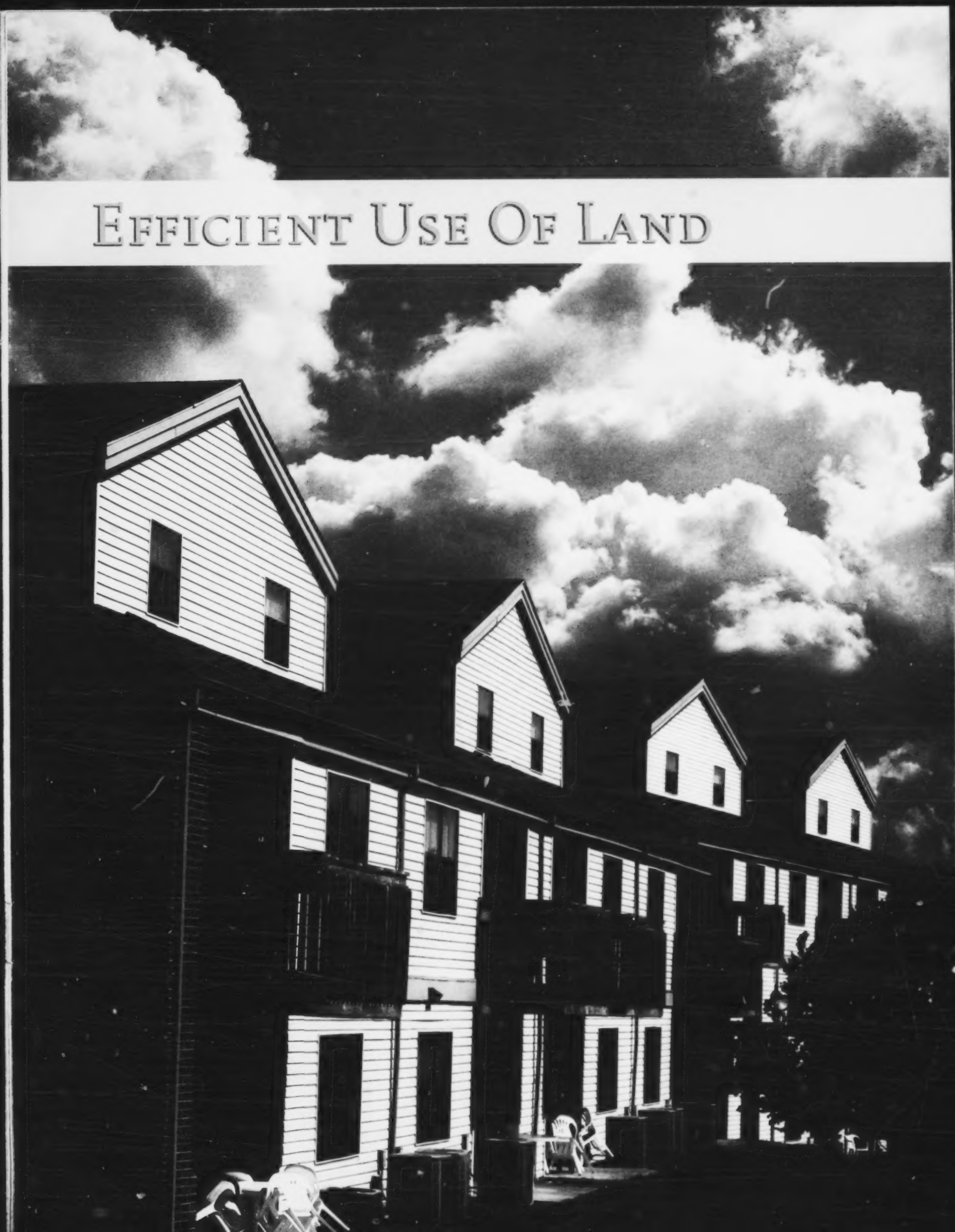
Land conservation offsets

Land conservation offsets are compensatory actions that address biodiversity or natural value loss arising from development on both public and private lands. Compensation mechanisms include restitution for any damage to the environment through replacement, restoration, or compensation for impacted landscapes.

Lease-swapping and dealing with existing tenure rights in ecologically sensitive areas

Where high conservation values occur on public and private lands, new incentives could be developed to encourage the expeditious removal of industrial activities or hydrocarbon resources from legislated protected areas or lands with high conservation value.

Efficient Use Of Land



Land is a limited, non-renewable resource and so should not be wasted. Land-use decisions should strive to reduce the human footprint on Alberta's landscape. When it comes to land use, other things being equal, less is more — more choices for future generations. This principle should guide all areas of land-use decision-making; urban and rural residential development, transportation and utility corridors, new areas zoned for industrial development, and agriculture.

Examples of land-use decisions that promote efficient use of land.

- Minimize the amount of land that is taken from undeveloped or extensive use and placed in permanent use for residential, commercial, industrial, transportation, utility corridors or intensive recreational purposes.
- Use "green" technology in new development projects that will reduce the impact on natural systems.
- Encourage higher density where redevelopment opportunities occur.
- Support development where infrastructure capacity—water, sewer, road and other infrastructure—already exists.
- Planning land uses to reduce the frequency and length of travel for business and pleasure by promoting mixed-use development—industrial, commercial and residential.

Land-use efficiency should be commensurate with the level of activity in the region. On public lands where there are multiple users on the same landscape (e.g., forestry and oil and gas), integrated land management should be used to reduce the development footprint. In more densely settled metropolitan areas, the efficiency principle may require more complex strategies such as inter-municipal development plans or sub-regional plans such as the Capital Region Board and the Calgary Regional Partnership.

Monitoring, Evaluation And Reporting

Near Hinton, Alberta

Accurate, timely and accessible information is essential to good land-use planning and decision-making. There are many provincial government ministries, other levels of government, industries, groups and individuals that know a lot about the land—including farmers and ranchers, academics, researchers, and First Nations and Métis communities. Establishing stronger connections between these groups will help improve our understanding of how activities affect the land and develop new approaches to land use.

Currently, there is a general lack of accessible, integrated information. Greater collaboration and information sharing is needed between governments, industry and non-government organizations. A sound monitoring, evaluation and reporting system is also needed.

Successful land-use planning must respond to changing circumstances and risks—economic, environmental and social. The Land-use Framework will be based on a system for continuous improvement. Plans and actions may be adjusted and incorporate new technology or new information.

A. Information management

To ensure planners, decision-makers and Albertans have timely access to relevant information, the Government of Alberta will create an improved Integrated Information Management System that monitors the state of the land and the status of land use in the province. This will be done by:

- building on existing information sharing initiatives to ensure timely and practical access to information;
- reviewing and improving protocols for information sharing, taking into consideration proprietary and sensitive information; and
- incorporating scientific and traditional ecological knowledge to inform land and natural resource planning and decision-making.

B. Monitoring and evaluation system

A system of monitoring, evaluation and reporting is required to determine if our land-use policies are achieving desired outcomes. Monitoring programs need to use standardized data collection and analysis processes and standardized metrics so that the same information can be applied and shared across regions. A provincial monitoring and reporting system will be developed to ensure relevant timely and accessible information and ensure consistency across regional plans. This system will be guided by the following principles:

- comprehensive—monitor economic, environmental and social outcomes (cumulative effects),
- practical—results from monitoring must support decision-making,
- understandable—by government and the public;
- forward looking—reports on outcomes that are relevant now and in the future, and
- adaptive—framework can adapt to new knowledge and issues.

Initiatives such as the Alberta Biodiversity Monitoring Program that is being implemented through the Alberta Biodiversity Monitoring Institute is an example of a key program that will support the monitoring and evaluation of the Land-use Framework. This program is a joint undertaking of government, industry and non-government interests for the purpose of developing and implementing a credible, arms-length biodiversity monitoring and reporting system for the province. The Government of Alberta will need to provide sustained funding for the ongoing development and implementation of monitoring, evaluation and reporting programs.

C. Knowledge

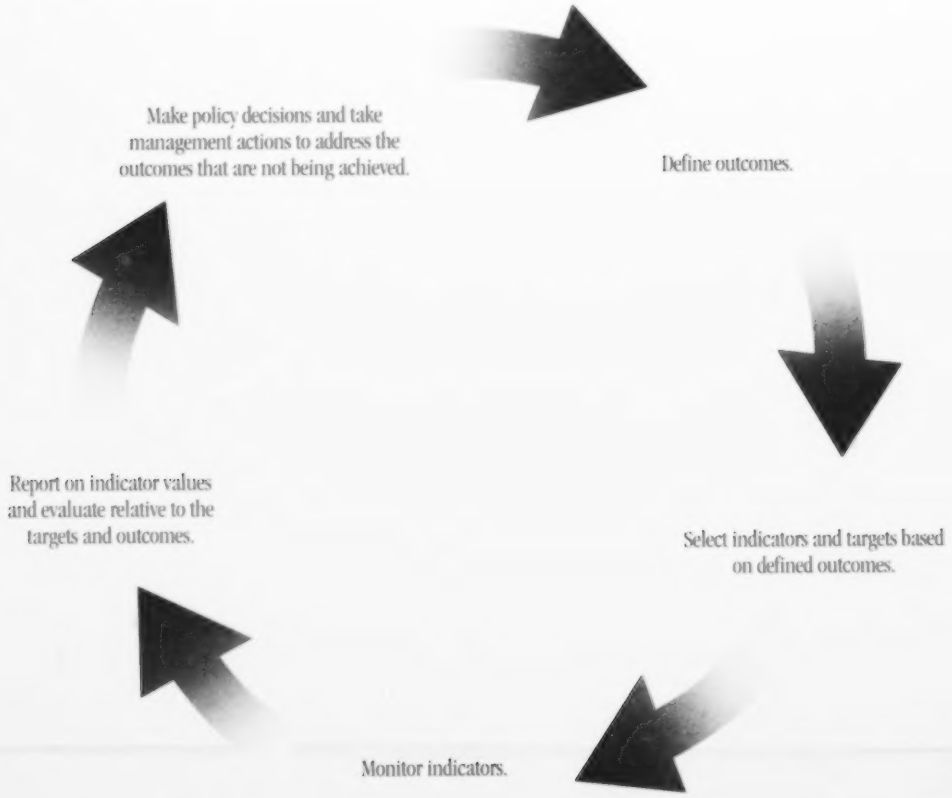
The Land-use Framework will foster the creation and sharing of knowledge for the continuous improvement of land management decisions and practices.

The Government of Alberta will facilitate the establishment of a network connecting researchers, practitioners, institutions and programs to address strategic needs and priorities for the Land-use Framework. This will include:

- establishing a virtual centre of excellence or other appropriate mechanism to provide a focal point for land-use knowledge and information,
- identifying research needs (e.g., economic, environmental, and social),
- improving technology and knowledge transfer,
- improving capacity for practitioners to use technology and be aware of best management practices, experience and knowledge,
- developing tools for continuous improvement (e.g., scenario models and other simulators for decision support, etc.), and
- exploring opportunities for using traditional knowledge along with scientific data.

D. Continuous improvement

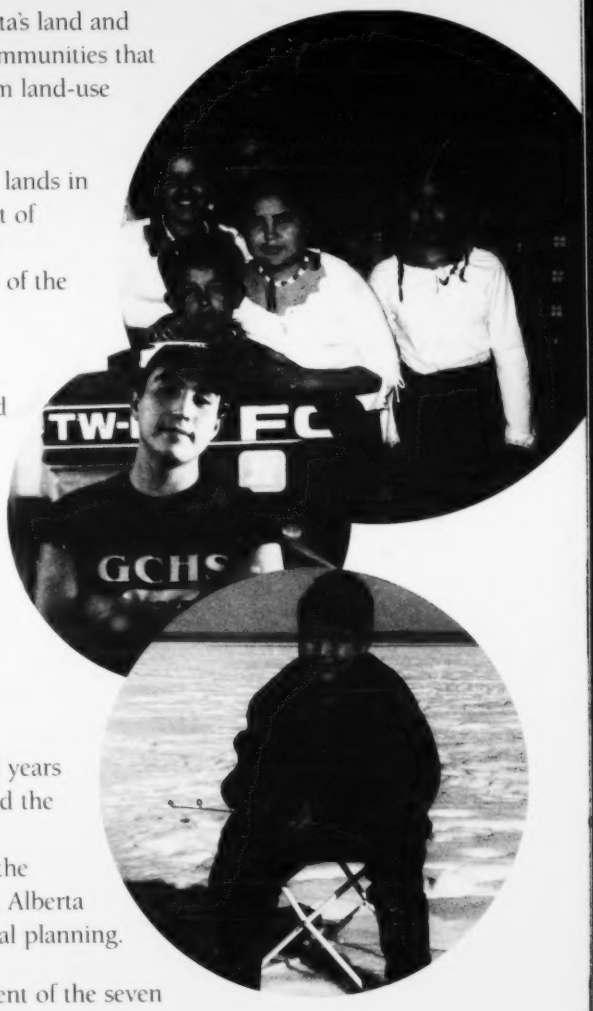
Successful land-use planning must respond to changing circumstances. The Land-use Framework will be based on a system for continuous improvement. Plans and actions may be adjusted and incorporate new technology or new information. If there are unintended negative consequences, Cabinet may correct or repeal provincial policy as needed. The diagram below shows the components of the systems approach to monitor and improve land-use decision-making.


Define outcomes.
Select indicators and targets based on defined outcomes.
Monitor indicators.
Report on indicator values and evaluate relative to the targets and outcomes.
Make policy decisions and take management actions to address the outcomes that are not being achieved.

Aboriginal Peoples

The aboriginal peoples of Alberta have an historic connection to Alberta's land and environment. Alberta recognizes that those First Nations and Métis communities that hold constitutionally protected rights are uniquely positioned to inform land-use planning.

The Government of Alberta has the constitutional mandate to manage lands in the province for the benefit of all Albertans. However, the Government of Alberta will continue to meet Alberta's legal duty to consult aboriginal communities whose constitutionally protected rights under section 35 of the *Constitution Act, 1982 (Canada)* are potentially adversely impacted by development.



To support meaningful consultation in the province, Cabinet approved *The Government of Alberta's First Nations Consultation Policy on Land Management and Resource Development* in 2005. This policy is a key step towards engaging First Nations in land management decision-making. Ongoing review and monitoring of the policy with the intent of changing and improving it will ensure that it meets the needs of Albertans, First Nations and industry. To address specific implementation challenges, Alberta has created a "trilateral process" involving senior representatives from industry, First Nations and government.

Efforts to build First Nations capacity have been underway for several years and include programs such as the Traditional Use Studies Program and the First Nations Consultation Capacity Investment Program, which are administered by the Ministry of Aboriginal Relations. By investing in the gathering and maintenance of information on First Nations land uses, Alberta has also helped prepare First Nations for increased dialogue in regional planning.

Aboriginal peoples will be encouraged to participate in the development of the seven regional land-use plans.

Priority Actions For The Land-use Framework

West Bragg Creek area, Alberta
Rick Blackwood

The Land-use Framework constitutes a significant change in how land-use decisions are made in Alberta. Implementing the recommended institutional changes and developing individual plans for the seven new land-use regions will take time. This is normal and acceptable for policy change of this magnitude.

A. Immediate priorities

The Land-use Framework will be implemented in stages over the next four years. The first priorities are:

- the introduction and enactment of legislation required to support the implementation of the Land-use Framework. This legislation will be introduced in the Spring 2009 Session of the Legislature;
- the development of metropolitan plans for the Capital and Calgary regions. Both of these are scheduled to be completed in 2009; and
- the regional plans for the Lower Athabasca and South Saskatchewan regions. These are both scheduled to be completed in 2010.

While the specifics are different in each case, the scope and pace of development in these areas warrants their priority. Getting things right now will contribute to the future well-being of Albertans. Other regional plans will be completed by 2012.

1. Legislation to support the Land-use Framework

The Land-use Framework will create a new regional planning structure and affect many laws and policies that guide decisions by provincial ministries, municipalities and land users. Legislation to clarify roles, responsibilities and processes and give authority to plans and policies that emerge under the framework is needed. Developing that legislation and amending existing laws is a priority for the Government of Alberta.

The scope of the legislation will include;

- establishing the Land-use Secretariat and Regional Advisory Councils and defining their mandates,
- outlining the purpose, process and content for regional plans,
- defining the approach to cumulative effects management for the purpose of regional planning,
- supporting the use of conservation and stewardship tools, and
- defining the authority of regional plans, once approved.

A significant number of consequential amendments to other legislation (*Municipal Government Act*, *Public Lands Act*, *Forests Act*, etc.) will also be required.

2. Metropolitan plans for the Capital and Calgary regions

While the Land-use Framework establishes regions to conduct its provincial interest planning on a broad landscape basis, the Government of Alberta recognizes that the Calgary and Edmonton metropolitan areas face intense growth pressures. Capital infrastructure requirements, information sharing, and collaboration require a more detailed planning approach.

These plans are already under development through ongoing planning initiatives of the Capital Region Board for the Edmonton Capital region and the Calgary Regional Partnership for the Calgary Region. Each metropolitan plan should consider and address:

- a vision of the region's pattern of development in the short-medium- and long-term;
- a transportation and utility plan that identifies the infrastructure and services that are of regional benefit and protect transportation and utility corridors from encroachment and development;
- a long-range regional perspective on the plans developed for key infrastructure, such as water and sewer systems, roads, and transit;
- complementary policies between municipalities to eliminate conflicts before they occur, and manage them where they already exist;

- support for higher-density infill development across the region which preserves the natural environment, conserves agricultural land and makes more efficient use of existing infrastructure; and
- future growth areas and areas where growth would be limited. An environmentally and fiscally sound infrastructure plan should be developed to support the type and scale of future development before that development occurs.

The framework supports the development of the Capital Region Plan that has been slated for completion by March 2009. In addition, the Land-use Framework supports the completion of the metropolitan planning initiative being undertaken by the Calgary Regional Partnership.

Given the urgency, it is recognized that metropolitan plans will be completed before regional plans are in place. Once completed, the regional plans will provide guidance to future updates of the metropolitan plans.

3. South Saskatchewan Regional Plan

Southern Alberta has the largest population but the least water. Most of Alberta's roads and rail lines within the province are concentrated in southern Alberta. The region grows much of Alberta's wheat, barley and canola, and contains the majority of feedlots.

The region also contains Alberta's largest city and over one-half of Alberta's total population. This region includes the most intensively developed and productive irrigation network in Canada and much of Alberta's native prairie landscape. Once known as the Palliser triangle, much of this region is semi-arid and water use is a critical issue.

All of southern Alberta depends on the ecological integrity of the Eastern Slopes for its water supply. But much of the Eastern Slopes are zoned for multiple-use. It is not uncommon to find oil and gas operations, grazing leaseholders, and forestry operations all active on the same lands. Often these are the same lands on which southern Albertans depend for their recreation. There is friction between different recreational groups when they all compete for the same area. Relations sometimes become more strained when one or more of the commercial users are also active on the same land. If done in careless or negligent ways, all of these uses have the potential for negative consequences on watersheds, fisheries, habitat and wildlife.

The breathtaking beauty of the landscapes for which southern Alberta is famous—especially along Highway 22, the "Cowboy Trail"—is also at risk from new oil and gas development, new power lines and pipelines, the demand for more acreages and country residential housing, and the fragmentation of traditional ranch and farm properties.

Historically, watershed and recreation were deemed the priority uses of the Eastern Slopes. These priorities should be confirmed, and sooner rather than later. A new land-use plan for southern Alberta will not mean an end to new oil, gas, timber or country residential development. It will mean paying closer attention to where they are done and how they are done.

4. Lower Athabasca Regional Plan

Northeastern Alberta has been the epicentre for economic growth in Alberta and Canada through the development of the oil sands. With over $100 billion in planned oil sands investment in the region, the environment and communities are under immense pressure from a variety of stakeholders, often with competing interests.

In addition to the unique challenges that oil sands development brings, the majority of the land is public owned. The region contains both urban and rural areas, many of which are remote and cannot be accessed by road on a year-round basis. These factors will require a unique cumulative effects management approach that focuses on responsible development and balances environmental, social and economic issues.

The Lower Athabasca Regional Plan will identify and set resource and environmental management outcomes for air, land, water and biodiversity, and guide future resource decisions while considering social and economic impacts. The plan will be guided by *Responsible Actions: A Plan for Alberta's Oil Sands*, which is based on extensive public input through the Radke Report: Investing in *Our Future: Responding to Rapid Growth In Oil Sands Development, the Multi-stakeholder Committee Report* and the *Aboriginal Consultation Final Report*. The plan will also link to other provincial strategies including the *Provincial Energy Strategy, Water for Life*, the *Biodiversity Strategy*, the *Climate Change Strategy*, and the *20-Year Strategic Capital Plan*.

B. Addressing provincial policy gaps and areas of provincial interest

There are a number of specific areas of provincial interest where clear provincial policy does not exist. The Government of Alberta is committed to addressing the following provincial policy gaps and areas of provincial interest.

Managing subsurface and surface activities within our province

Conflicts between subsurface and surface activities are increasing as activities intensify on the land. The policies that address surface and subsurface values are not well integrated. The Government of Alberta will complete the Upstream Oil and Gas Policy Integration Initiative and review the current process for identifying major surface concerns prior to public offering of Crown mineral rights.

Reducing the fragmentation and conversion of agricultural land is an integral component of a successful Land-use Framework. Agriculture is a key contributor to the Alberta economy. Reducing the fragmentation and conversion of agricultural land to other uses is a key consideration, as is the proliferation of other land uses impacting agricultural land. The Government of Alberta may develop more effective mechanisms and approaches, such as market-based incentives, transfer of development credits, agricultural and conservation easements, and smart growth planning tools designed to reduce the fragmentation and conversion of agricultural land to other uses.

Developing a transportation and utility corridors strategy

While corridors can affect the land and other land uses, they also create an opportunity for consolidating a number of critical land-use functions within a pre-defined area, thereby reducing land fragmentation and environmental impact.

This is a priority for the following reasons:

- the cost of establishing a corridor in the future will be higher (i.e., land purchase and easements);

- the options for corridor alignment and siting will decrease with time as land is converted to or consumed by other long-term land uses. Corridor alignment would be one of the factors considered in the development of regional plans;
- there is an immediate need to address corridor needs in the Edmonton-Calgary corridor through a provincial corridor strategy, long-term environmental benefits will be delivered and land fragmentation issues with landowners will be minimized. Land-use efficiencies will also be obtained by consolidating transportation and utilities into provincial corridors; and
- the province has just released a 20-Year Strategic Capital Plan that identifies Alberta's immediate-, medium- and longer-term infrastructure needs, including several major transportation projects across the province. The plan identifies many new highways, as well as expansions and upgrades to existing highways, including ring roads around Calgary and Edmonton.

Managing recreational use of public lands.
The Government of Alberta is committed to working with members of the recreational communities and other key stakeholders to develop a comprehensive strategy to better manage growing recreational pressures and activities in Alberta. The strategy will:

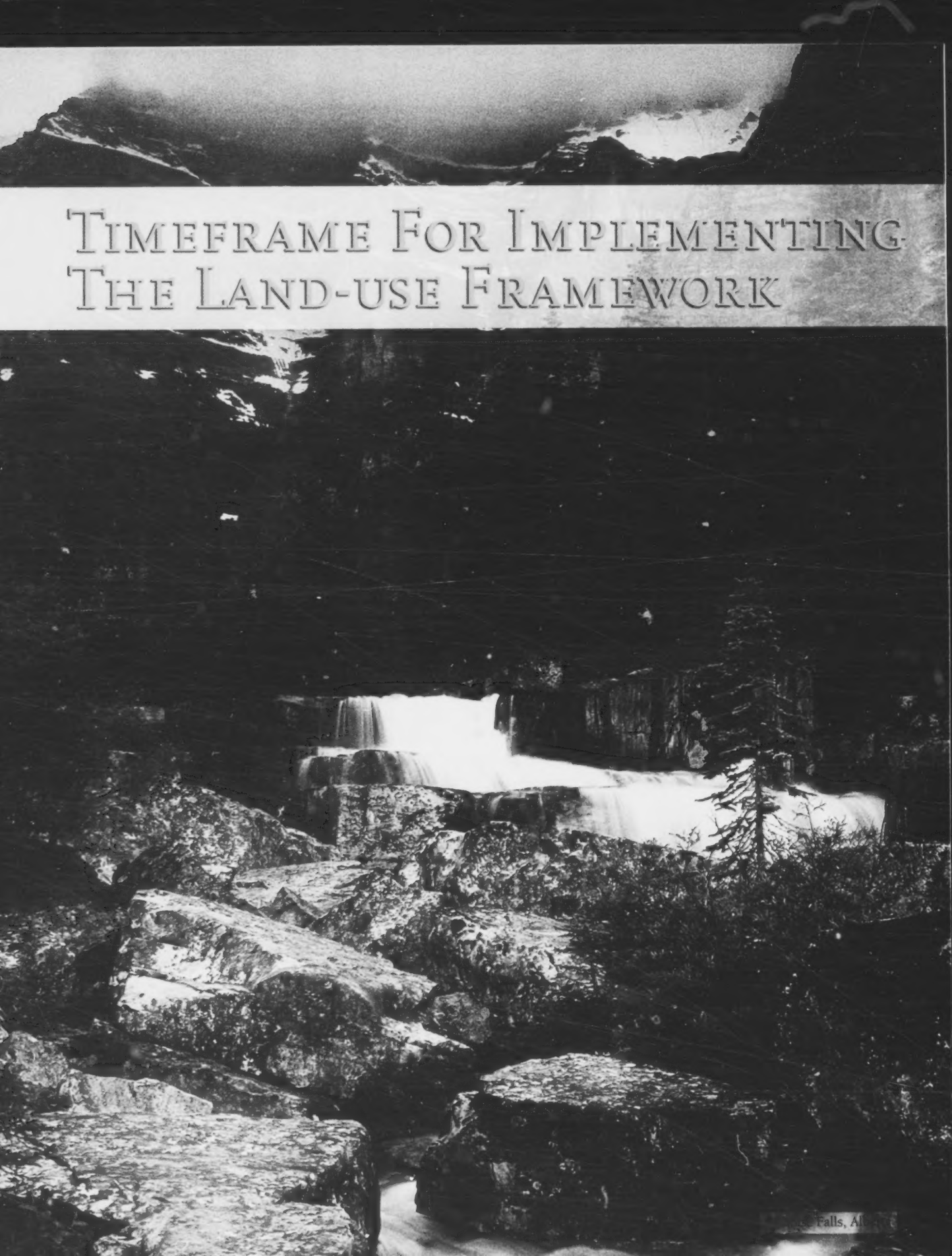
- enable a variety of recreational opportunities,
- reduce impacts to public lands and natural resources,
- reduce conflicts and increase co-operation between land users, and
- improve public safety.

The Government of Alberta will continue to work with the Alberta Recreation Corridors Coordinating Committee to develop criteria, standards, policies and guidelines for establishing an Alberta Recreation Corridor Designation Program. After completion of the recreational strategy for public lands, the government will develop a broader strategy for the province that will include associated private land.

Conserving and protecting the diversity of Alberta's ecological regions
The Government of Alberta will address the gaps associated with conserving and protecting the diversity of Alberta's land base (*Natural Regions and Subregions of Alberta Report*), accommodate population growth and improve quality of life opportunities through development of a plan for provincial parks.

Managing flood risk to protect human life, manage natural resources, and limit disaster damage faced by communities. The Government of Alberta will develop policy to minimize exposure of developments and settlements to flood risk.

Timeframe For Implementing The Land-use Framework



The Land-use Framework constitutes a significant change in how land-use decisions are made in Alberta. Implementing the recommended institutional changes and developing individual plans for the seven new regions will take time. A timeframe for the implementation of the Land-use Framework is provided in the table below.

The Government of Alberta will:	By 2010	By 2012
Land-use regions and plans		
Establishing regional planning		
• Develop regional plans for the seven regions of Alberta.	✔	✔
• Review and update existing provincial appeal processes for land-use decisions, where required.	✔	
Land-use governance structure		
Land-use Secretariat		
• Establish a provincial Land-use Secretariat to support the Cabinet.	✔	
Regional Advisory Councils		
• Create a Regional Advisory Council for each region to provide advice on the development of regional plans.	✔	✔
Cumulative effects management		
• Use cumulative effects management as a key component of the Land-use Framework.	✔	✔
Conservation and stewardship		
• Develop a strategy for conservation and stewardship on public and private lands.	✔	

	By 2010	By 2012
Monitoring, evaluation and reporting		
Information management		
• Create an improved Integrated Information Management System that monitors the state of the land and the status of land use in the province.		✔
Monitoring and evaluation system		
• Build a provincial monitoring and reporting system to ensure accurate, timely and accessible information is available to support land-use planning and decision-making.		✔
• Provide sustained funding for the ongoing development and implementation of the biodiversity monitoring program.	✔	✔
Knowledge		
• Support the establishment of a network connecting researchers, practitioners, institutions and programs to address strategic needs and priorities for the Land-use Framework.		✔
Aboriginal peoples		
• Encourage aboriginal peoples to participate in the development of land-use plans.	✔	✔
• Continue to work with First Nations to better understand and consider their traditional land uses.	✔	✔
Priority actions for the Land-use Framework		
Immediate priorities		
Legislation to support the Land-use Framework	✔	
Metropolitan plans for the Calgary and Calgary regions		
• Support the development and implementation of the Capital region metropolitan plan.	✔	
• Support the completion of the metropolitan planning initiative for the Calgary metropolitan region.	✔	
South Saskatchewan regional plan		
• Undertake and lead the development of a regional plan for southern Alberta.	✔	

	By 2010	By 2012
Lower Athabasca regional plan		
• Undertake and lead the development of a regional plan for northeastern Alberta.	✔	
Addressing provincial policy gaps and areas of provincial interest		
Managing subsurface and surface activities within our province		
• Complete the Upstream Oil and Gas Policy Integration Initiative and review the current process for identifying major surface concerns prior to public offering of Crown mineral rights.	✔	✔
Reducing the fragmentation and conversion of agricultural land		
• Evaluate more effective mechanisms and approaches to reduce the fragmentation and conversion of agricultural land to other uses.	✔	✔
Transportation and utility corridors		
• Create a transportation and utility corridor strategy for the province.	✔	
Recreational use of public lands		
• Develop a strategy to manage recreational use of public lands.	✔	
• Develop a province wide strategy to manage recreational use that will include associated private lands.		✔
Conserving and protecting the diversity of Alberta's land base		
• Address the gaps associated with conserving and protecting the diversity of Alberta's land base.	✔	✔
• Develop a plan for provincial parks.	✔	
Managing flood risk		
• Develop policy to minimize exposure of developments and settlements to flood risk.	✔	

Glossary

Aboriginal peoples of Alberta
Includes the First Nations and Métis people of Alberta.*

Archaeological sites
Places where objects or landscape features may be found that show evidence of manufacture, alteration or use by humans, the patterning of which is valuable for the information that it may give on historic human activities.

Biodiversity
The assortment of life on earth—the variety of genetic material in all living things, the variety of species on earth and the different kinds of living communities and the environments in which they occur.

Carrying capacity
The ability of a watershed, airshed and/or landscape to sustain activities and development before it shows unacceptable signs of stress or degradation.

Conservation
The responsible preservation, management and care of our land and of our natural and cultural resources.

Crown land
Crown land includes all provincial and federal government lands. Provincial parks (administered under the *Provincial Parks Act*) and public land (administered under the *Public Lands Act* and the *Mines and Minerals Act*) are examples of provincial Crown land. The Integrated Land Management Program applies to provincial Crown land; however, where existing legislation (e.g., *Municipal Government Act*, *Parks Act*, *Special Areas Act*, and *Public Highway Development Act*) dictates specific management intent, modified approaches to integrated land management will result.

Cumulative effects
The combined effects of past, present and reasonably foreseeable land-use activities, over time, on the environment.

Ecological goods and services
Economic and social benefits resulting from the natural processes of a healthy environment and biodiversity. These are available to all of society and are essential to sustaining a healthy and prosperous way of life. They include groundwater recharge, flood and erosion control, wildlife habitat, productive soils, carbon dioxide sequestration and abundant clean air and water.

Ecosystems
The interaction between organisms, including humans and their environment. Ecosystem health/integrity refers to the adequate structure and functioning of an ecosystem, as described by scientific information and societal priorities.

Economic
Relating to the wealth of a community or nation.

Environment
The components of the earth—including air, land, water, all layers of the atmosphere, all organic and inorganic matter and living organisms, and all of their interacting natural systems.

Forest Management Agreement
A large, area-based agreement between the Province of Alberta and a company. It gives a company the right to establish, grow, harvest and remove timber from a particular area of land.

Historical resources
Any works of nature or of humans that are primarily of value for their palaeontological, archaeological, prehistoric, historic, cultural, natural, scientific or aesthetic interest.

Industrial development
In the context of land use, this term means natural resource development activities like exploration, harvesting and extraction of natural resources. It can also mean, in a municipal planning/zoning context, the use, infrastructure and activities associated with production (e.g., manufacturing, fabricating, warehousing, processing, refining or assembly).

* for the purpose of this document

Land
The entire complex of surface attributes including air, water, and the solid portions of the earth.

Land-use
All uses of land, such as crops, forestry, conservation, recreation, tourism, oil and gas, mining, utility corridors, transportation, cities and towns, industrial development, etc.

Market-based instruments
Market–based instruments provide financial incentives and disincentives to guide behaviour towards conservation and stewardship and mitigate undesirable activities in an effort to lessen adverse effect on the environment. Market forces play a key role, facilitated through regulation, in creating a price mechanism to motivate behaviour.

Municipalities
Cities, towns, villages, summer villages, municipal districts and specialized municipalities.

Natural region
A way of describing broad ecological variations in the landscape. Natural regions reflect differences in climate, geology, landforms, hydrology, vegetation, soils and wildlife. There are six natural regions in Alberta.

Natural resources
Resources that occur in nature, including non-renewable resources, such as timber, fish, wildlife, soil, water, oil sands, coal and minerals.

Non-renewable resources
Natural resources that are in fixed supply, such as coal, oil and minerals.

Palaeontological deposits
Rocks or soils containing evidence of extinct multi-cellular organisms.

Private lands
Land privately owned by individuals, groups, companies or organizations that make decisions about how it is used or managed within existing legislation.

Public lands
Land owned by the provincial government, which makes decisions about how it is used and managed, including for agriculture, forestry, resource development, habitat conservation and protection of watersheds and biodiversity.

Region
A geographical area or district having definable boundaries or characteristics. Regions can be based on natural regions, watersheds or administrative boundaries.

Renewable resources
Natural resources that are naturally replenished, such as fish, wildlife, water and trees.

Rural
Areas where there is a lower concentration of people and buildings than in urban areas. Rural areas typically include farms and resource extraction activity as well as low-density residential communities (i.e., parcels of an acre or more).

Social
Relating to society or its organization, including living in organized communities and related factors such as culture, health and well-being and safety.

Stewardship
An ethic whereby citizens, industry, communities and governments work together to responsibly care for and manage Alberta's natural resources and environment.

Subsurface
Subsurface is used to describe the resources (e.g., oil and gas, coal, metallic and industrial minerals such as limestone) identified under the *Mines and Minerals Act*. It also refers to the titles, rights and activities to access those resources below the ground. Subsurface resources do not include sand and gravel as these are considered surface materials.

Surface
Resources, activities and development that occur on the land e.g., sand, gravel, topsoil, roads and buildings. In land ownership, surface title includes the land and the space above and any sand, gravel, peat, clay or other substance that can be excavated through surface activities. Land titles usually carry a mineral reservation, which excludes subsurface resources; mineral titles for these resources are usually granted separately.

Sustainable development
Development that meets the needs of the present without compromising the ability of future generations to meet their needs.

Sustainability
Relates to understanding the interconnections and continuity of economic, environmental and social aspects of human society and the non-human environment.

Systems approach
An approach to integration that recognizes the interdependence and interaction of parts of a system. It views systems in a holistic manner.

Transportation corridor
A major highway and/or railway, including the associated land required for the right-of-way and buffer.

Urban
Areas where there is a concentration of people and buildings, such as cities or towns and including unincorporated communities such as hamlets.

Utility corridor
A linear strip of land that is used for pipelines (for oil, gas, water, etc.), electrical transmission lines and/or telecommunications (fibre optic) cables, including the associated land required for the right-of-way and buffer. In some places utility corridors are combined with transportation corridors.

Watershed
The area of land bounded by topographic features that drains water to a larger body of water such as a river, wetland or lake. Watersheds can range in size from a few hectares to thousands of square kilometres.